DUN'S REVIEW

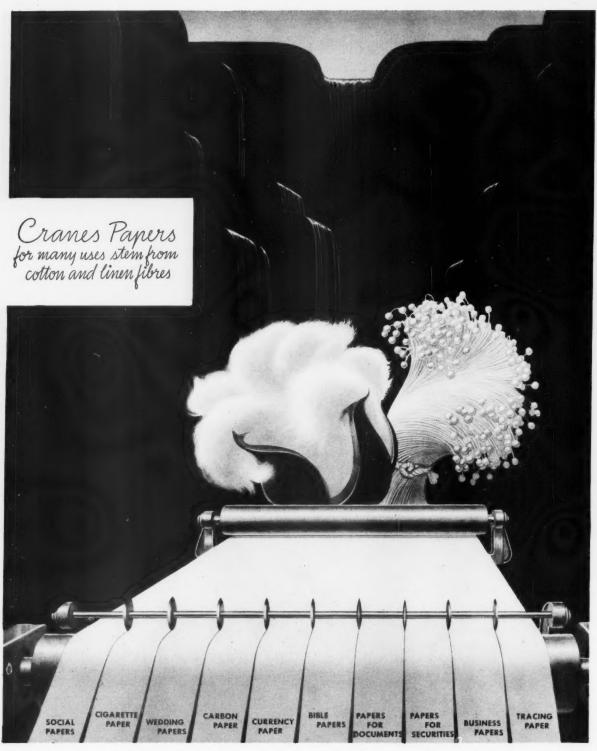
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This Month's Cover NATCHEZ, MISS.

Winter Scene, Augusta, Me Frontispiece
The Board of Directors—Duties and Responsibilities A survey of the principal duties, responsibilities, and methods of procedure of directors, and considerations in their selection John Calhoun Baker President, Ohio University
Northward Ho: A Century and a Half of Retailing on Manhattan 16 The development of New York City's retail trade including the founding and expansion of many of today's leading businesses A. M. SULLIVAN Associate Editor, Dun's Review
The Economics of Industrial Interdependence - 22 New procedures for making a practical business survey on basis of inter-industrial relationships are described by Dr. Leontief WASSILY LEONTIEF Associate Professor, Department of Economics Harvard University
The Trend of Business 27 Production, employment, retail trade, and prices continued to increase; total income payments and business failures declined
Significant Business Indicators 29
Regional Trade Barometers 31

Dun's Review, February 1946. Published monthly by Dun & Bradstreet, Inc., 290 Broadway, New York 8, N. Y. Volume 54, No. 2214. Copyright 1946 Dun & Bradstreet, Inc. Printed in U. S. A. Frontispiece from Standard Oil Company.

Natchez, tourist and trading center and a major shipping point for industrial and agricultural products, is located on high bluffs above the Mississippi River in southern Mississippi.

Named after the Natchez Indians, the white man's settlement of the vicinity began in 1716 when Le Moyne de Bienville built a fort. The Indians destroyed this fort in 1729 and massacred most of the inhabitants. The rebuilt fort was occupied successively by French, English, Spanish, and American troops. The city was chartered in 1803 and twice served as the capital of Mississ ppi, from 1798-1802 and from 1817-1821.

Today, tourists flock to Natchez to visit the historic old mansions which are thrown open to visitors during the Spring. The community, which in 1940 had a population of 15,296, is the terminus of four steamship lines and contains a tire and rubber company, and broom, box, shirt, candy, and coffee roasting factories. The 19 industrial plants in 1939 produced goods valued at \$6,861,161; the 271 retail stores had sales of \$5,426,000; the 80 service establishments, receipts of \$406,000; and the 38 wholesalers, receipts of \$4,566,000.

The cover illustration, depicting the city about 1835, is from the Phelps Stokes Collection, New York Public Library, and was reproduced from a lithograph in colors.



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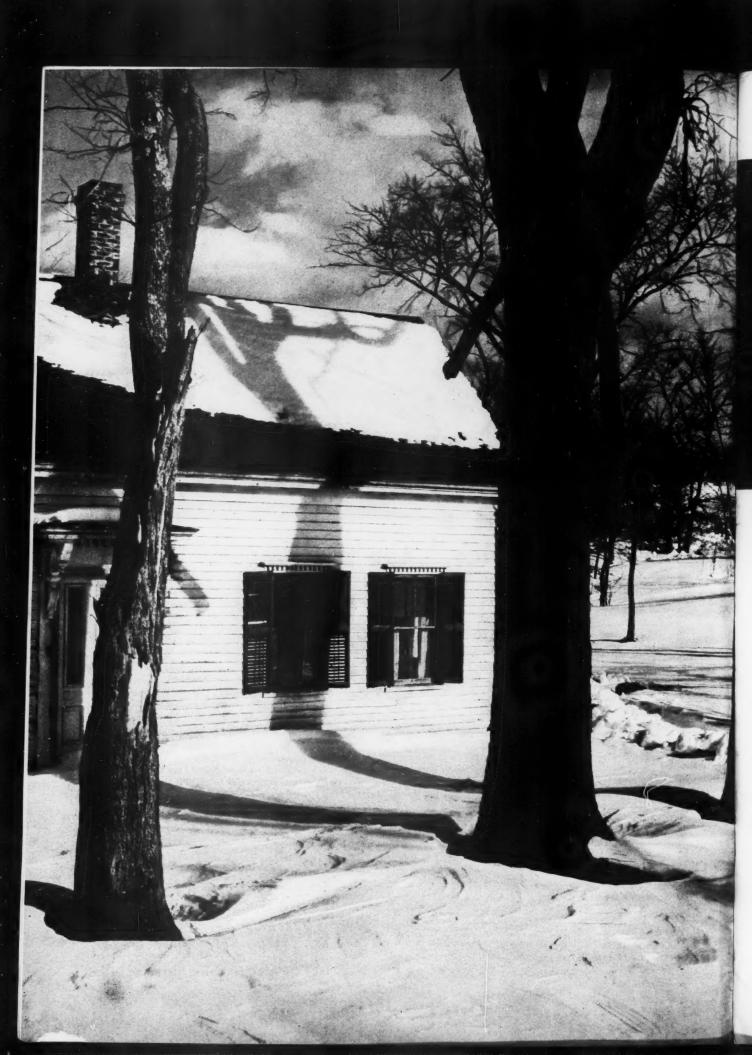
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THE BOARD OF DIRECTORS—



Duties and Responsibilities

JOHN CALHOUN BAKER

President, Ohio University

F free enterprise is desirable and if it deserves to flourish, then one may well ask the question, "Who are the trustees of private enterprise for society?" If these trustees are corporate directors, and there is no other group in view, then the importance of understanding directors emerges into its proper perspective. Directors in conjunction with executive officers are responsible for the successful operation of our corporations, including earnings and dividends for stockholders, and jobs and adequate wages for employees.

The research into the broad subject of directors on which this article is based started with actual case studies of management problems that large industrial corporations were meeting and the relationship of directors to these management problems. The study is

WHAT are the principal duties and responsibilities of directors? How far should they enter into actual business operations? What is the best way for them to secure the information which they need to arrive at decisions? In the selection of directors what types of background and traits of character are considered most desirable? Here the Har-

vard survey directed by Dr. Baker

throws light on these questions.

set against the background of three aspects of the business environment: the separation of ownership from management, the growing social significance of corporations, and the emerging concept of trusteeship.

Throughout this study two streams of thought recur. One of these has to do with the part directors play in administration, that is, in getting things done. The other has to do with the part directors play in trusteeship, that is, in keeping a balance among the interests of stockholders, employees, customers, and the public.

Management problems considered by boards varied widely from company to company but taken as a whole they covered practically the entire range of top management functions. Some executives maintained that the board's only function was to elect the president. At the other extreme some directors gave reasons for a board's attempt to operate a company. The incomplete compilation of statements shown on this page suggests the scope and variety of the problems reported.

Most functions at the top management level call for both administrative skill and the trusteeship point of view, with variations in emphasis. One board chairman illustrated this dual responsibility in explaining his company's decision on conversion to war production. His plant was located in a relatively small community and produced equipment with skilled workers. Two alternatives were presented to the directors, who were satisfied after preliminary reports by executives that the organization could develop either proposal economically. The board finally decided to accept the alternative that would not require an expanded labor force, for which they could see no need in normal times. They argued that maintenance of community stability was part of their responsibility. This choice involved a considerable understanding of administrative problems as well as a sense of trusteeship. The same board later authorized voluntary renegotiation of government contracts, a decision requiring less administrative skill but a sense of public policy.

Trusteeship Obligations

The drive for profits in top management in most companies puts sufficient emphasis on the administrative point of view, but frequently the trusteeship obligations are not fully appreciated and are sometimes almost completely overlooked.1 Directors should be concerned with the administrative aspects of problems and should check to see that executives secure results. Yet the board should not be preoccupied with day-to-day administrative operations. Directors need to give their attention to a large number of management duties calling for a keen sense of trusteeship which are becoming increasingly prominent: for example, deciding labor policy, voting dividends, acting on

ABOUT THE AUTHOR:

Dr. John Calhoun Baker, President of Ohio University, formerly Associate Dean of Harvard University and Professor of Business Administration at the Harvard Business School, throws new light on the duties of directors and their place in business society. Dr. Baker's interest in this subject developed out of his extensive research on executive functions and compensation.

Before his election to the Presidency of Ohio University he headed a research project of the Harvard Business School in the field of corporate directors. One of the results of this survey was Directors and Their Functions, A Preliminary Study. by John C. Baker, recently published by the Division of Research, Graduate School of Business Administration, Harvard University, Boston, Mass.

stockholders' complaints, making plans for succession, checking the results of officers, and making decisions which might involve conflicts of interest. When action on these issues has been left to executive officers, it sometimes has led to misunderstanding, mistakes, and legal controversies. This study revealed, however, that directors individually and as a group are becoming much more conscious of these fiduciary duties than they ever had been before. Today, in almost all companies, directors are giving increased consideration

to the fulfillment of these responsibilities.²

If directors are to meet their increasing responsibilities, it seems clear that they must devote more thought to planning board activities and developing a philosophy for action. Study of the procedures followed by active and successful boards of directors led to the conclusion that there are at least four major variations in the way effective boards function on different questions.

One procedure has been for the board of directors to take jurisdiction of an issue, to deliberate, and to *decide*.

A second type of board procedure relates to its action on decisions made by executives "subject to approval by the board." The board after questioning *confirms* the executive decision; in rare cases it refuses confirmation. Although refusal to confirm is

SUMMARY OF FUNCTIONS REPORTED BY INDIVIDUAL DIRECTORS

One of the main functions of directors is to secure competent executives to operate a company and to insure the continuation of able management. As a corollary to this, directors must be ready to act as a "stand-by" for executives if they for any reason fail. Directors are narricularly active, in case of deep failure receiveship or similar crises.

Directors are particularly active in case of near failure, receivership, or similar crises.

Directors consider and approve the basic policies under which a corporation operates, such as the following: what products should be made, what facilities used, how products should be sold, and how financed; also price policies, important advertising policies, and other relations with consumers, distributors, labor, and Government.

Directors check executives and the results they secure. This means analyzing not only financial results, such as sales volume, profits, competitive position, public relations, and similar problems, but also the character of executives and the possibility of dishonesty or

Directors supervise, control, and act on important financial matters, such as capital structure changes, large loans, dividend payments, and relations with subsidiaries.

Directors approve and review capital and operating budgets.

Directors approve and review capital and operating budgets.

Directors approve selection of general counsel and formal action required by law.

Directors establish the salaries of senior executives, approve bonus and pension plans, and control all other policies relating to payments to executives.

Directors have the critical function of asking discerning questions at board meetings. Directors are responsible for presenting an outside point of view They see that proper basic relationships exist among all groups: stockholders, the public, creditors, labor, and customers.

Directors represent all stockholders.

Directors inspect properties and review actual operations. This furnishes them with firsthand impressions of the achievement of executives.

Directors are responsible for proper inside as well as outside audits. Some boards provide that auditors should report to outside directors and even to stockholders rather than to executives who are directors.

Directors scrutinize, or have legal counsel or expert consultants do so for them, all corporate action affecting their trustee relationships: whether the company is being legally operated; whether questionable contracts exist between officers, directors, and the corporation: whether the company is maintaining its competitive position; and similar questions.

^{1 &}quot;I venture to assert that when the history of the financial era which has just drawn to a close comes to be written, most of its mistakes and its major faults will be ascribed to the failure to observe the fiduciary principle . . . " Harlan F. Stone, "The Public Influence of the Bar," Harvard Law Review, November 1934, page 8.

² For illustration, "... the company represents more than the 'big bosses,' New York, the stockholders, or board of directors. It is more than an economic unit with merely economic functions. The company is also an entity on which they project their greatest hopes and fears... It is the function of the policies of the company to preserve the values by means of which the social organization is maintained in a steady state of equilibrium... "Fritz I. Roethlisberger and William J. Dickson, Management and the Worker (Cambridge, Harvard University Press, 1930). page 368. Also pertinent are the charts of "The Informal Supervisory Organization," page 362, and "Interrelationsamong Four Groups in Industry," page 543 in Chapter XXIII, "Formal vs. Informal Organization," Also Sec Clinton S. Golden and Harold J. Ruttenberg, The Dynamics of Industrial Democracy (New York, Harper & Bross, 1942). Chapter III, "The Development of Leadership." Also Beniumin M. Selekman. "Administering the Union Agreement," Harvard Bussness Review, Spring 1945, page 209

infrequent this fact does not reflect a rubber stamp attitude. When executives know that the board will follow the procedure of questioning their proposals, they support them with careful diagnosis and planning.

A third procedure by which board members act is in informal conferences with executives. This method is used in initial stages of policy formation. When a new line of products is under consideration or changes in executive organization are contemplated, for example, executives frequently discuss these questions with board members who counsel, advise, encourage, and guide executives, or give words of caution.

A fourth way that boards function is to keep abreast of executive acts by review of reports and inspection of facilities.

The way the boards in the study differed in their use of these four procedures in dealing with different questions is shown on page 14. The table contains a brief list of problems selected from those found in the study. It shows the type of action taken by the boards in most companies, many companies, and in few companies. The four types of procedure are indicated by the key concept of what the boards of directors do: decide, confirm, counsel, review.

One of the general problems listed in the table on page 14 is "Formation of major policies in production, mark ing, finance, personnel." Consider the case of an equipment manufacturing company selling through agents. The sales manager proposed to the president that the company open its own sales branches. The estimated annual operating budget for the branches exceeded the usual annual capital expenditures of the entire company. Hypothetically, in most companies the president would confer with individual directors and then make his decision; in many companies the executives would develop a plan and submit it to the board for confirmation; and in a few companies the issue would be presented to the board for initial deliberation and decision. In the case cited, executives conferred with influential directors and then conducted an arraniment in one area. The president reported results to the board, announcing that the executives were extending the policy nationally.

The most effective directors, by general agreement, are those who ask the most discerning questions. The importance of this criterion is apparent when one realizes that the place of the board rightfully is removed from operations. One of the contributions a director can make to management is an independent point of view. A board can soundly decide few questions from the personal knowledge of its members. But directors can use the effective tool of asking intelligent questions to reveal blind spots in executive proposals.

It seems worthwhile to emphasize the importance and value of the capacity of a director to ask such questions. The courts have rather strongly insisted on the principle that a corporation is ordinarily bound only by action of directors taken at a meeting. Judges apparently regard as important the opportunity for consultation. There seems to have been recognition by judges of the principle that the wiser conclusion, whether it is to act or not to act or to postpone for further investigation, is the result of consultation rather than circularization.

"The foreknowledge that searching questions will be asked is a psychological barrier to the proposal of halfbaked projects," to quote one forceful vice-president. Furthermore, by asking questions directors do not get involved in making decisions3 that rightly are the responsibility of executives. This procedure tends to keep directors out of operations and to help them think in terms of objectives and policies.

Criticisms Encountered

In a field as vital as that of corporate directors it is particularly important to understand dissatisfactions and criticisms from whatever source they may come. The following criticisms are illustrative of those most frequently encountered. These criticisms generally seem to be symptoms rather than causes of malfunctioning. Whether they are warranted, it is significant that they have appeared.

Certainly no panacea exists for magically producing able and independent

In reporting these criticisms the author is neither endorsing nor refuting them.

Directors are complacent and not deeply concerned over their responsibilities; they a profound interest in corporate welfare. "Stuffed shirts."

Directors, irrespective of whether they are executives or non-executives, are not inde-

pendent: they often fail to have the stockholders' point of view. "Rubber stamps."

The selection and election of directors are not controlled by stockholders but by executive officers. The president may be re-elected by men whom he placed in office.

Executive-directors are more interested in "back-scratching" and "log-rolling" for individual projects than in the welfare of the company as a whole.

Many directors give too little time to their duties and even fail to attend meetings

Many directors give too little time to their distance of their most perfunctory obligations. regularly or to meet their most perfunctory obligations. "They are mainly façade or window

Directors often take a narrow view of their responsibilities and neglect completely stockholders whom they are supposed to represent. Directors own no stock, or too few shares to be interested as stockholders.

Directors act on problems about which they have too little knowledge.

The directorate is just a place to which to "promote" superannuated officers. Directors

do not retire when their usefulness is over.

Directors frequently make decisions in which they are personally interested. This permits self-dealing and creates a conflict of personal interests with their responsibilities to stockholders.

Directors are recruited for the most part from a small group of influential individuals; certain directors are on a large number of directorates. They therefore tend to represent this group of persons and their thinking rather than the stockholders or the public. bers of an exclusive club who conform to a social pattern.

Many directors know well the operations of a specific company, and are motivated by what they can "get out" of their position rather than by a desire to serve all stockholders and society effectively. The motivation of directors has never been clearly explained or

Outside (non-executive) directors permit the establishment of groups of interlocking directors.

Directors and officers are insiders and form a self-perpetuating management group. They have great economic power, and stockholders and society have too little control over them.

³ "Not to decide questions that are not pertinent at the time is uncommon good sense, though to raise them may be uncommon perspicacity. Not to decide questions prematurely is to refuse commitment of attitude or the development of prejudice. Not to make decisions that cannot be made effective is to refrain from destroying authority. Not to make decisions that others should make is to preserve authority." Chester I. Barnard, The Functions of the Executive (Cambridge, Harvard University Press, 1938), page 194.

directors. These critical comments can be useful, however, for they indicate the pitfalls into which boards may slip if they fail to play their full part in corporate management.

The one most actively discussed subject at this time concerns "inside," or executive, directors and "outside," or nonexecutive, directors. The following statement of a stockholder quoted from a report of R. H. Macy & Company's annual stockholders' meeting in October 1943, is pertinent: "Mr. Chairman, I noticed that we have lost one of our nonemployee directors this last year and now are down to only three directors who are nonemployees, which in my opinion, is a very sad situation ... Too much management domination of a Board of Directors is not good for any company." The complexity of the problem is also shown by this quotation, which suggests that inherent in the question is the number of "outside" board members on any directorate required to satisfy critical stockholders

Numerous Variations

Instead of two clearly defined categories of "inside" and "outside" directors, investigation revealed that there were so many variations of these two classifications that classifications tended to signify little. It appeared that no one favored all "outsiders" on a board, although in certain companies, such as the General Electric Company, only two executives were members of the board.4 On the other hand, it was difficult to decide what comprised a board of "insiders." For instance, one board of nine members included eight executives and the company's general counsel. In another company, with a board of eight, there were six executives plus the general counsel and a banker with numerous close business ties. Then there was the company with eleven directors, five of whom were executives, and the other six personal friends of the president.

When trouble occurred at McKesson & Robbins, Incorporated, its board included six "outside" members and twelve executives. Another board of

KOPPERS CORE COMPANY PLANT, KEARNY, N. J.—HOBART PHOTOGRAPH FROM MONKMEYER

eleven directors included three officers; the other directors were not officers but were full-time employees. Members of this board spent their full time being directors and none of them had operating responsibilities. All had broad executive experience, and four of them had had extensive experience with other companies. These examples show that upon analysis many boards would not fall into either of the two categories.

It should not be overlooked that many factors in the relation between directors and the administrative organization are the same regardless of whether the director is from "inside" or "outside." In the board room it is no light matter for directors to overrule administrative recommendations. "Administration is the determination and execution of policies involving action. Such policies must be conceived

METHODS USED BY DIRECTORS IN DIFFERENT COMPANIES TO DEAL WITH ILLUSTRATIVE PROBLEMS¹

Problems	In Most Companies	Used by Diri In Many Companies	In Few Companies
Selection of president—his remuneration (and removal)	Decide		
Nomination of directors	Decide		
Changes in capital structure		Confirm	
Capital budget or expenditures Selection of outside auditors		Confirm	
Determination of dividends		Confirm	
Selection and remuneration of other executives		Decide	
Formation of post-war plans		Confirm	Decide
Formulation of major policies in production, market-			
ing, finance, personnel	Counsel	Confirm	Decide
Addition of new products		Counsel	Confirm
Preparation of operating budget	Review	Counsel	Confirm
Union negotiations and settlement	Review	Counsel	Confirm
Reports on competitive position and operating results.		Review	Counsel
Decisions on detailed advertising program			Review

¹ This exhibit is not a statistical summary. Too few underlying data were comparable enough for mathematical count. The author believes, however, that the results are a useful approximation of the practices he and his associates observed.

⁴ See Gerard Swope, "Some Aspects of Corporate Management," Harvard Business Review, Spring 1945, page 314. For further elaboration of reasons why there are no simple answers to the problems of directors, see George E. Bates, "The Board of Directors," Harvard Business Review, Autumn 1940, page 72.

by men. Such action must be effected by human organizations."5

The examination of individual boards in detail also was found to be necessary to the understanding of relationships among the numerous and intricate problems of directors, their functions and contributions. Time after time the stubborn facts of a particular case exploded plausible generalizations about directors, including the author's

Findings and Interpretations

Certain preliminary conclusions may be drawn but much still remains to be done before final answers can be reached. Even then it is believed that important reservations should necessarily accompany the findings. First, conclusions must be limited to the corporations studied: American industrial companies publicly owned and listed on exchanges. Second, such findings even though supported by the weight of evidence need not be final, have universal application, or be a substitute for good business judgment in specific situations. Third, they are the results of evidence of various kinds and therefore indicate standards rather than inexorable rules.

Justice Cardozo's statement about judicial reasoning applies here: "We are tending more and more toward an appreciation of the truth that, after all, there are few rules; there are chiefly standards and degrees."6

One general and inescapable conclusion was clearly illustrated: Directors function in many different ways and yet produce outstanding results. No standard pattern need necessarily exist. Procedures are dictated by history, tradition, personalities, problems, products manufactured, sales methods, and industry more than by preconceived standards.

In presenting the results of this study, we have not elaborated on certain fundamental premises which have been generally accepted by the directors and executives interviewed and are a part of the environment in which directors function. It is important for the sake of clarity in this conclusion to state

these accepted points explicitly: (1) Although directors are elected by stockholders, they are responsible for the welfare of the entire enterprise in a very broad sense, not merely dividends for stockholders or the interests of any special group of stockholders. (2) The aim of corporate management, and the main test of its success, is profit—profit considered in the broadest sense with due regard to public interest. (3) The concept of top mangement includes both directors and executives.

One director stated and acted on the conviction that "the only duty of a director was to secure a good president and to support him as long as he was successful." Another furnished a long list of duties, many of which indicated his belief that he should participate in operations. Many directors acknowledged that they found their service on boards to be of great educational value. Throughout we encountered allegations that the main function of a director was to "get bank accounts," "get new business," or "reciprocity." Practically none of the directors interviewed, however, held these to be proper reasons for serving on a board.

In spite of the wide variations in practice, the following points are believed to outline the basic functions of an effective board of directors in discharging their responsibility for prudent management of the whole enterprise:

1. The board selects the chief executive and senior officers and makes certain that able, young executives are being developed. Also the board controls executive compensation and pension and retirement policies.

2. The board delegates to the chief executive and his subordinate executives authority for administrative ac-

3. The board discusses and approves objectives and policies of broad corporate significance, such as pricing, labor relations, expansion, and new products, as well as payment of dividends, changes in capital structure, loans, lines of credit, and public rela-

4. The board checks on the progress of the company not only as to immediate profits but also as to the discharge of its trusteeship responsibilities. Budgets, reports, inspections, and other

(Continued on page 34)

CARNEGIE-ILLINOIS STEEL CORPORATION PLANT, PITTSBURGH-GALLOWAY PHOTOGRAPH

5 Wallace Brett Donham, "The Theory and Practice of Administration," Harvard Business Review, Summer 1936,

Page 405.

Beniamin N. Cardozo, The Nature of the Judicial Process (New Haven, Yale University Press, 1921), page 161.



NEW YORK CITY FROM THE STEEPLE OF ST. PAUL'S CHURCH, BROADWAY, 1848-ENO COLLECTION, NEW YORK PUBLIC LIBRARY

Northward Ho:

A CENTURY AND A HALF OF RETAILING ON MANHATTAN

A. M. SULLIVAN

Associate Editor, Dun's Review

WIND and tide determined the location of Manhattan's first business center. From the earliest occupation by the Dutch to the invention of the steamboat, trade fronted the East River from Pearl and Whitehall Streets along the water northeast to the foot of Wall Street where a protective wall crossed the island. It is hard to believe that Pearl Street was the original waterfront, but the old maps show how the sailing vessels crowded along the sheltered side of the island. Here they could lift canvas in a favoring wind and creep into the outgoing tide. There was little commercial development on the opposite of the island until Fitch and Fulton provided the means of overcoming the preHE growth of New York City during the past century and a half and the consequent expansion of its retail trade northward from the lower portion of the island to the whole of Manhattan and the Boroughs of Greater New York are outlined by Mr. Sullivan.

vailing westerly breeze which sweeps over Manhattan from the Jersey shore.

To the Dutch and early English settlers Broadway was the last north-bound street encountered en route to the north or Hudson River. Hundreds of valuable acres have been added to the end of Manhattan Island. Pearl Street is now removed three long blocks from the waterfront. Battery Park is on completely manufactured land. Trinity Churchyard, once but a block

from the water, is now three blocks away. Broad Street was originally an inlet, a sort of Venetian canal with bridges at the cross streets.

Several brooks meandered through what is now the most valuable real estate in the world. Swamps have been drained, ponds filled, and trout streams compressed under the weight of great buildings. Occasionally these diverted water-courses remind engineers and builders of their presence and cause

Special research for this article was conducted by Ralph Lewis Moran. The map on pages 18 and 19 was prepared by Miss Elinor S. Condit, Dun & Bradstreet staff.

trouble. One builder came to financial grief trying to provide bottom for the impressive State Building which stands on giant stilts on the site of the Collect, a fresh water pond where John Fitch tested his steam-driven boat in 1796, more than ten years before the Clermont started up the Hudson. Subway builders have found their path blocked by shipmasts, and hulks of derelicts buried in mud along the lost shoreline, reminding us that Father Knickerbocker has considerably enlarged the twenty-four dollar investment that Peter Minuit made in behalf of the Dutch West India Company.

Manhattan's natural advantages as a commercial doorstep to a continent were recognized by the Dutch, even if they were slow to develop them. A new world Dutch poet, Jacob Steendam, wrote a panegyric worthy of a real estate agent in 1659, recounting the business and social benefits of living in "New Amsterdam." The purpose of this poetic tract was to encourage more settlers and the bait he held out was most alluring. The harbor he saw popped with fish, and the whale, porpoise, and seal were constant and friendly visitors.

After the Revolution, the natural deep water advantages of New York as a commercial gateway received the additional benefits of the digging of the Erie Canal and the incidental benefit of lesser canals that reached across New Jersey, Pennsylvania, and New York State to the coal mines. The city benefited by the new plank roads and stage lines, and by the packet services along the coast, Long Island Sound, and up the Hudson. All this is part of the well-publicized story of Manhattan as a port of entry to an empire rolling westward. But there is another story to be told, the intimate and local account of a growing retail community.

Retail Trade Gains Impetus

This retail expansion got its real impetus under the American flag when trade broke through the old Dutch and English limits of the city. In 1784, New Yorkers had come back to a despoiled city, with its buildings destroyed by fire or in poor repair and streets blocked by barricades. But there was a genuine spirit of enterprise among the citizens stimulated by a sense of independence. In 1789, Manhattan had 23,614 people. It had 3,340 houses, the remnants of the fires of 1776 and 1778 which cut a swath through the city from lower Pearl Street north toward the Hudson. On May 4, 1784, five commissioners were appointed to lay out streets in the devastated part of

the island and in 1789 when George Washington arrived for his inauguration as the first President of the United States, the wounds of enemy occupation and fire were mended.

The first bank was established in 1784, and in 1792 dealers in securities made an agreement among themselves which was the initial step toward the founding of the Stock Exchange. The frequent recurrence of yellow fever in the city between 1795 and 1822 encouraged merchants to divorce their businesses and their homes, and many began to move uptown to the villages of Greenwich and Chelsea. Good drinking water was a major social and economic problem in New York until 1842, when Croton water was piped in.

Business distinctions were not sharply defined prior to the Revolution, nor was the cleavage between wholesale and retail completely discernible for a generation afterward. Judge Robert R. Livingston made a distinction in his statement in 1765 when asking for repeal of the Stamp Act. Commending the boycott of imports to which stamps must be affixed, he wrote "Merchants have resolved to send for no more British manufactures, shopkeepers will buy none, gentlemen will wear none." The merchants were importers, commission houses, and auctioneers, and

This view of lower Broadway shows each building from the Hygeian Depot to beyond Niblo's Gardens. Tattersall's, the building with the gable roof on the right side of Broadway, a horse and carriage market, riding school, and livery stable, later became the largest horse market in the United States.



A Century and a Half of Retail Growth on Manhattan, 1790-1945

240 200 22 21: 200 12c 21b 33c 25f 333 oc 21o 12b 12a 30a 25g 26h 30b 33) JJb 264 32a 27a 37a 16c 210 145 326 32c 25a 25b 14 90 13 134 135 316 150 8d 1874 658 Broadway 19d 1906 439 Fifth Ave. 19e 1927 584 Fifth Ave. 14f 1840 366 Rivington 8e 1884 936 Broadway 14g 1843 152 William 8f 1915 346 Madison 14h 1845 575 Sixth Ave.

DEVOE & RAYNOLDS CO. la 1754 160 Water 1b 1855 106 Fulton 1c 1892 110 Fulton A. F. BROMBACHER & CO. 2a 1760 33 Fulton 2b 1859 200 Broadway 2c 1864 124 Maiden Lane DUNCAN PHYFE . 3a 1790 3 Broad 3b 1795-1847 194 Fulton BARTLEY BROS. & HALL 4a 1791 Pearl & Old Slip 4b 1813 111 Pearl 4c 1837 222 Pearl

4d 1858 50 Warren 4e 1924 52 Warren WILLIAM OLLIFFE 5 1805 6 Bowery

BLACK STARR & GORHAM 6a 1810 166 Broadway 6b 1833 181 Broadway 6c 1848 247 Broadway

6d 1860 565 Broadway 6e 1874 251 Fifth Ave. 6f 1898 438 Fifth Ave. 6g 1912 592 Fifth Ave. ARTHUR TAPPAN & Co.

7 1816-1841 120 Pearl

BROOKS BROTHERS 8a 1818 116 Cherry 8b 1857 464 Broadway 8c 1867 44 E. 14 St.,

KLAUBERG & BROS. 9a 1819 122 Fulton 9b 1840 195 William 9c 1884 173 William 9d 1917 233 Broadway ACKER MERRALL & CONDIT CO. 10a 1820 130 Chambers 10b 1890 1399 Sixth Ave. 10c 1904 2377 Broadway C. G. GUNTHER'S SONS 11a 1820 46 Maiden Lane 11b 1866 504 Broadway 11c 1876 184 Fifth Ave. 11d 1909 391 Fifth Ave. 11e 1929 666 Fifth Ave. A. T. STEWART & Co. 12a 1823 283 Broadway 12b 1827 262 Broadway 12c 1830 257 Broadway 12d 1846 280 Broadway 12e 1862-1896 778 Broadway ARNOLD CONSTABLE & CO.

13a 1825 91 Pine 13b 1826 156 Front 13c 1827 311 Canal 13d 1868 113 Fifth Ave. 13e 1915 453 Fifth Ave. JOFA, INC.

14a 1826 6 St. & Fifth Ave. 14b 1830 48 Lafayette 14c 1832 136 Nassau

14d 1835 13 Beekman 14e 1839 82 Nassau

14i 1846 11 Spruce 14j 1850 165 William 14k 1853 166 William 14I 1856 44 Walker 14m1874 62 Greene 14n 1878 14 Astor Pl. 140 1882 35 E. 17 St. 14p 1930 45 E. 53 St. LORD & TAYLOR 15a 1826 47 Catherine 15b 1838 61 Catherine 15c 1853 251 Grand 15d 1860 463 Broadway 15e 1872 897 Broadway 15f 1914 424 Fifth Ave. HEARN DEPT. STORES 16a 1827 As Arnold & 16b 1842 425 Broadway 16c 1856 775 Broadway 16d 1878 30 W. 14 St.

H. K. Brewer & Co. 17a 1835 26 Nassau 17b 1920 42 Exchange Pl. 17c 1939 21 Beaver Lewis & Conger 18a 1835 601 Broadway 18b 1870 967 Sixth Ave. 18c 1891 130 W. 42 St.

18d 1912 1159 Sixth Ave. WM. KNABE & Co.

19a 1837 112 Fifth Ave. 19b 1889 148 Fifth Ave. 19c 1899 152 Fifth Ave.

JAMES McCREERY & Co. 20a 1837 82 Canal 20b 1853 471 Broadway 20c 1868 801 Broadway 20d 1895 66 W. 23 St. 20e 1906 5 W. 34 St. Tiffany & Co. 21a 1837 259 Broadway 21b 1847 271 Broadway 21c 1853 550 Broadway

21d 1870 15 Union Sq. 21e 1905 393 Fifth Ave. 21f 1940 727 Fifth Ave. P. J. KENEDY & SONS 22a 1838 44 Centre 22b 1848 47 Mott 22c 1873 5 Barclay 22d 1911 44 Barclay 22e 1931 12 Barclay KNOX HATS 23a 1839 280 Washington 23b 1843 192 Duane

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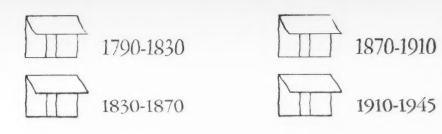
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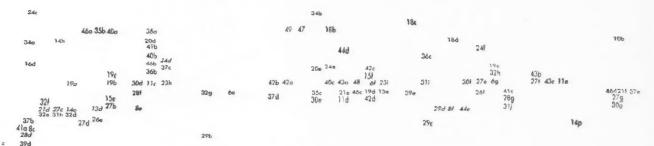
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DEA

23c 1844 319 Greenwich 23d 1845 110 Fulton 23e 1846 128 Fulton 23f 1854 212 Broadway 23g 1867 533 Broadway 23h 1872 194 Fifth Ave. 23i 1901 452 Fifth Ave. FLINT & HORNER Co.

24a 1840 14 Charlton 24b 1847 395 Hudson 24c 1876 104 W. 14 St. 24d 1894 43 W. 23 St. 24e 1914 20 W. 36 St.





24f 1926 66 W. 47 St. THE MERCANTILE AGENCY (R. G. Dun & Co.), (Dun & BRADSTREET, INC., 1933), (Also J. M. BRADSTREET Co.) 25a 1841 6 Exchange Pt 25b 1844 9 Exchange Pl. 25c 1850 70 Cedar 25d 1857 111 Broadway 25e 1862 314 Broadway 25f 1866 293 Broadway 25g 1868 335 Broadway 25h 1878 314 Broadway

25i 1900 290 Broadway W. & J. SLOANE 26a 1843 245 Broadway 26b 1855 501 Broadway 26c 1861 591 Broadway 26d 1867 655 Broadway 26e 1882 884 Broadway 26f 1912 575 Fifth Ave.

DEAN'S 27a 1845 741 Broadway 27b 1860 893 Broadway 27c 1873 17 Union Sq. 27d 1876 864 Broadway 27e 1899 572 Fifth Ave. 27f 1908 628 Fifth Ave. 27g 1931 6 E. 57 St. CHARLES SCRIBNER'S SONS

28a 1846 145 Nassau 28b 1855 377 Broadway 28c 1857 124 Grand 28d 1866 654 Broadway 28e 1874 743 Broadway

28f 1890 153 Fifth Ave. 28g 1913 597 Fifth Ave.

CHARLES & Co.

29a 1848 86 Delancey 29b 1860 384 Fourth Ave. 29c 1875 50 E. 43 St. 29d 1945 340 Madison

M. KNOEDLER & Co.

30a 1849 289 Broadway 30b 1853 366 Broadway 30c 1859 772 Broadway 30d 1869 170 Fifth Ave. 30e 1895 355 Fifth Ave. 30f 1910 556 Fifth Ave. 30g 1924 14 E. 57 St.

GALL & LEMBKE

31a 1851 298 Pearl 31b 1852 163 Division 31c 1854 218 Bowery 31d 1855 70½ Bowery 31e 1857 80 Bowery

31f 1860 172 Bowery 31g 1868 155 Fulton 31h 1869 21 Union Sq.

31i 1903 1 W. 42 St. 31j 1922 7 E. 48 St. Brentano's Book Stores 32a 1853 721 Broadway 32b 1856 608 Broadway 32c 1860 708 Broadway

32d 1870 39 Union Sq. 1896 31 Union Sq. 32f 1902 5 Union Sq. 32g 1907 225 Fifth Ave. 32h 1925 1 W. 47 St. J. M. Bradstreet Co. (also see

THE MERCANTILE AGENCY) 33a 1857 237 Broadway 33b 1862 247 Broadway

33c 1871 279 Broadway 33d 1898 346 Broadway 33c 1927 148 Lafayette

33f 1931 290 Broadway R. H. MACY & Co.

34a 1858 509 Sixth Ave. 34b 1902 1321 Broadway B. ALTMAN & Co.

35a 1864 39 Third Ave. 35b 1868 645 Sixth Ave. 35c 1906 355 Fifth Ave.

STERN BROS. 36a 1867 703 Sixth Ave. 36b 1878 28 W. 23 St.

36c 1910 27 W. 42 St. F. A. O. SCHWARTZ

37a 1870 765 Broadway 37b 1880 42 E. 14 St.

37c 1896 35 W. 23 St. 37d 1909 5 E. 31 St. 37e 1930 753 Fifth Ave.

BLOOMINGDALE BROS., INC. 38a 1872 938 Third Ave. 38b 1875 924 Third Ave.

38c 1886 996 Third Ave. ROGERS PEET COMPANY

39a 1874 487 Broadway 39b 1882 569 Broadway 39c 1889 258 Broadway 39d 1902 842 Broadway

39e 1915 479 Fifth Ave. BEST & Co.

40a 1879 643 Sixth Ave. 40b 1882 60 W. 23 St. 40c 1910 372 Fifth Ave. JAMES McCutcheon & Co. 41a 1880 845 Broadway

41b 1890 64 W. 23 St. 41c 1900 609 Fifth Ave.

OVINGTON 8

42a 1890 330 Fifth Ave. 42b 1906 314 Fifth Ave. 42c 1922 436 Fifth Ave. 42d 1927 437 Fifth Ave.

A. DE PINNA Co.

43a 1891 394 Fifth Ave. 43b 1916 626 Fifth Ave. 43c 1929 650 Fifth Ave.

ABERCROMBIE & FITCH

44a 1892 36 South Street 44b 1903 314 Broadway 44c 1905 57 Reade St.

44d 1913 55 W. 36 St. 44e 1917 362 Madison JOHN WANAMAKER, NEW YORK,

INC. 45 1896 778 Broadway BONWIT TELLER

46a 1897 607 Sixth Ave. 46b 1905 58 W. 23 St.

46c 1911 417 Fifth Ave. 46d 1931 721 Fifth Ave.

SAKS & Co.

47 1902 1303 Broadway Franklin Simon & Co. 48 1902 414 Fifth Ave.

GIMBEL BROTHERS 49 1910 897 Sixth Ave.

addresses listed above have been cor should addresse histed above have been cor-rected to agree with present street numbers. Prior to 1850 frequent changes of address were customary and some locations are not shown, but the earliest listed are accurate and indicative of the particular trade mentioned, The first date listed shows the start of a business in Manhattan. Unless a second date for the same address is given the business is stiff in operation.

the shopkeeper was the tradesman and craftsman. Large merchant grocers and dry goods houses often sold wholesale and retail. More than 200 merchants signed the boycott agreement of 1765, but when the war broke out not all were willing to sever bonds with the hard parent across the seas. Many of the merchants were English, Scotch, and Irish by birth and the decision between loyalties was sometimes a difficult choice. Some of them went

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The ANNALS of MANHATTAN

(Impressions and quotations culled from local newspapers and directories)

1780—The New York Manufactory is established in Vesey Street to give work to the industrious. It employs 14 weavers and more than 130 spinners. The linens, and so on, are sold at the factory.

t790—Early in this year Duncan Phyfe, a Scotsman by birth, and 22 years of age, came to New York from Albany, where he had already been in business as a cabinet maker. His first shop was on Broad Street and in 1795 he settled on what is now Fulton Street at numbers 168-170, his home being at 169.

1795—The principal market for retailing dry goods is William Street. A large number of the dry goods merchants of Smith Street ask to have one name given to Smith, William, and King George Street, all of which names are found on the same street.

1799—The earliest mention of a confectionery store is made in an advertisement of December 7. Joseph Delacroix, No. 112 in Broadway, has "a large assortment of Sugar Works, Best quality. Likewise cordials, syrops, sweet-meats in boxes at a fixed price." This building, on the site of the present No. 122, was 37½ feet in front, 146 feet deep, and two stories high. In 1801 the firm of Joseph Delacroix & Son "in the confectionary business" took its place. He soon added to his stock, "genuine beautifying perfumeries, the most in vogue in Europe."

1801—Bow windows give the business streets a very handsome appearance and preclude the necessity of exposing goods for sale over the walks.

1803—James Hardie, whose profession is "to write petitions, memorials, letters, advertisements, &c.," moves

from 7 Church Street to 305 Greenwich.

1805—Broadway has become the principal street for retailers of dry and fancy goods and is by far the most pleasant street in the city. Some of the most elegant houses, as well as public buildings, stand on this street. In September of this year the demand for houses at Greenwich "is scarcely greater than the rapidity with which they are raised—where yesterday you saw nothing but green turf, tomorrow you behold a store."

1806—At this time the street cries were distinctive. Among those heard were the milkman, the baker, the

chimney-sweeper.

1811—"Whereas a communication by means of a canal navigation between the great lakes and Hudson's river will encourage agriculture, promote commerce and manufactures, facilitate a free and general intercourse between different parts of the United States, and tend to the aggrandizement and prosperity of the country, and consolidate and strengthen the Union," Gouverneur Morris, Stephen Van Rensselaer, De Witt Clinton, Robert Livingston, Robert Fulton, and others, are appointed commissioners to examine the matter.

1812—The Common Council, acting on the report of the committee on amendments to the "Laws for the Suppression of Vice and Immorality" prepares a bill for the legislature. Some of the "evil practices" that are singled out for mention are: Grocery and Fruit Stores, Barber Shops, Public Gardens and Taverns, being open

on Sunday for the reception of "Company and Customers."

1813—To encourage manufacturing the state legislature incorporates "The Commission Company" to aid manufacturers, as well as private individuals engaged in domestic manufactures in disposing of articles solely of American manufacture. The business is limited to this city.

1814—The bookselling business has become a very extensive pursuit; and the capital annually employed in literary publications is estimated to exceed half a million dollars. There are in the city more than 30 book stores.

1815—The northern limit of Broadway at 10th Street. 1817—"Broadway is the Bond Street of New York, and exhibits in the shops on both sides, an elegant and

extensive assortment of every thing useful and fashionable." Henry Fearon, in his "Sketches of America" continues in astonishment, "The linen and woollen drapers (dry goods stores, as they are denominated) leave quantities of their goods loose on boxes in the street, without any precaution against theft."

1819—The Chamber of Commerce addresses a memorial to Congress requesting the enactment of a national bankruptcy law which shall put creditors of all descriptions upon a footing of equality throughout the Union.

1820—The west side of Broadway, near the corner of Spring Street (later the site of the St. Nicholas Hotel), is occupied by small shops and residences with the remains of a Revolutionary fortification in the rear.

1821—The merchants and storekeepers have formed Societies for preventing sales by auction, pledging themselves not to purchase anything at them for a certain time. Stationers and booksellers complain of "Peddlers vending quills in the streets to the injury of established traders." An ordinance is passed forbidding dyers and scourers washing articles of their trade at the public pumps and

prevents the drying of cloth in the streets.

1822—By this time Greenwich, once a separate town, is part of the city. Because of yellow fever "in this irregular and temporary city in the field, you might find in one group, banking houses, insurance offices, coffee houses, auctioneers' sales rooms, dry goods, hardware and grocery stores, milliner shops, barber shops and last, though not least a suitable proportion of grog and soda water shops."

1823—It is not uncommon in Broadway to pay for a single shop, well situated, 250 pounds sterling (about

\$1,000).

A. T. Stewart informs his friends and the public that he has taken a store at 283 Broadway where he offers for sale, wholesale and retail, a general assortment of fresh and seasonable dry goods.

1824—It is reported that 500 or 600 new mercantile establishments have been opened in New York during

the season.

1825—The canal boat, Seneca Chief, leaves Buffalo over the Erie Canal. It arrives at Fort Gansevoort at 6 a.m. November 4, and then moves to the Battery to initiate the city's ceremonies celebrating the canal opening.

(Continued on page 70)

GEORGE T. GREEN.



Men's Boy's and Children's Clothing Store, 110 CHATHAM-STREET,

NEW-YORK,

Will keep constantly on hand a full and complete assortment of

MEN'S BOY'S & CHILDREN'S CLOTHING,

OF ALL DESCRIPTIONS,

Made in the most Fashionable Style;

To which he would respectfully invite the attention of those in want. As he has made arrangements to receive

Cloths, Cassimeres, Vestings, &c.

By every Packet, and has secured the services of experienced Cutters, he pledges himself to give perfect satisfaction to those who may purchase

Carments made to order at the shortest notice and with strict punctuality,

ADVERTISEMENT FROM NEW YORK CITY DIRECTORY, 1845

to Nova Scotia, others back to the British Isles. These merchants were often shrewd veterans of the English counting houses, and their names are still recorded in the annals of the New York State Chamber of Commerce which was established on May 3, 1768, and incorporated December 5, 1769. One of these was John McAdams, a progressive individual who helped sponsor the friendly arbitration of commercial disputes. He went home before the hostilities and invented a paving surface which still bears his name. One of his first contractors in Ireland was a man named Hugh Prunty, who was the grandfather of the Bronté sisters. The majority of Manhattan merchants risked their necks and fortunes with the rebels, both the English and Dutch speaking business men. The patriots left Manhattan during British occupation. Hercules Mulligan, a merchant tailor who remained on the island, was ostensibly a turncoat but actually risked his neck as Washington's spy during the tedious years of British occupation. He was on the

original committee of 60 which included leading merchants and the lawyers of the city. Philip Livingston, a signer of the Declaration of Independence was among them. Another signer of a previous petition of patriots was the merchant, Francis Lewis, whose name is also on the Declaration of Independence.

City Trade Amazes Visitor

The progress of the retailers at the beginning of the nineteenth century is aptly described by John Lambert, a visiting Englishman. With unfeigned amazement he wrote:

"New York is the first city of the United States for wealth, commerce, and population. Broadway is lined with large commodious shops of every description, well stocked with European and India goods, and exhibiting as splendid and varied a show in their windows as can be met with in London.

'There are several extensive bookstores, print-shops, music-shops, jewellers, and silver-smiths; hatters, linendrapers, milliners, pastry-cooks, and couch makers. The ground floor of the hotel is converted into shops. Every day except Sunday is market day in New York. Meat is cut up and sold by the joint or in pieces, by the licensed butchers. Each must sell at his own stall, and conclude his sales by one o'clock between May 1 and November 1. Two o'clock the rest of the year. The ladies seem more partial to the light, various, and dashing drapery of the Parisian belles than our London Beauties."

Lambert then gives attention to the old Dutch quarter between Broadway and the East River which he criticizes for its irregular streets, but "which is nevertheless the chief seat of business." He describes warehouses, shops, and piers which are crowded with ships. "Bales of cotton, wool, and merchandize; barrels of potash, rice, flour and salt provisions, hogsheads of sugar, chests of tea, puncheons of rum, and pipes of wine, boxes, cases, packs, and packages of all sizes and denominations were strewed upon wharfs and landing places, or upon the docks of the shipping.'

He tells of the hurly-burly of merchants, brokers, traders, and politicians haunting the Tontine Cotiee House. Streets were jammed with drays—"Everything was in motion, all was life, bustle, and activity. The people were scampering in all directions to trade with each other, and to ship off their purchases for the European, African, and West Indian markets. Every thought, word, look, and action of the multitude seemed to be absorbed by commerce and all were eager in the pursuit of riches."

The distinction which Judge Livingston made among the merchant, shopkeeper, and gentleman a generation earlier invited further sub-division as the city grew. The merchants were large importers; auctioneers disposed of millions of dollars of goods as it was unloaded from the holds of ships; commission merchants bought and sold for others, as well as themselves and indulged in a form of factoring called "del credere" in which they indorsed paper for a percentage of the sale price. Some of these merchants became investment bankers and capitalists who drifted away from direct contact with merchandise.

Before and after the Revolution the merchant of New York handled alike dry goods, groceries, and sundries in the same establishment and trading was of a generalized character. The stocks of the retailer contained cottons and silks from India, and velvets and woolens from Europe, placed next to groceries and hardware.

An advertisement of 1734 reads: "At the House of John Bell, Carpenter, there is to be Sold, Broad Cloths, Kersey's, Kersey Plains, Frize, Green Colloured Duffills, Druggets, Shalloons, Mimikin Blew Bases, Frize, and Plains, and some Ready made Cloaths, &c. By Wholesale and Retail at Reasonable Rates. Also, Looking Glasses, and Eight Day Clocks with Japan Cases. N. B. and he will Truck for Beef, Pork, Bread, Flouer, and Gammons."

There was little difference between the retail trade in the city and the country, both groups of shopkeepers selling a bit of everything. However it was in the city that a tendency towards a separate classification began to appear; that is, dry goods and notions, in the more pretentious establishments, were

(Continued on page 54)

NEW procedures for making a practical analysis of business conditions are demonstrated by the author in this survey of interindustrial relationships. Such an analysis considers the relationship of a particular industry to all of the other branches of production, distribution, and consumption which constitute the national economy.





CORRUGATED BOARD INVENTORY, NATIONAL GYPSUM COMPANY, NILES, OHIO—NESMITH PHOTOGRAPH FROM CUSHING

The Economics of

INDUSTRIAL INTERDEPENDENCE

WASSILY LEONTIEF

Associate Professor, Department of Economics Harvard University

HE great depression of the thirties and the unprecedented productive effort of the recent war years have taught us to approach the economic problems of the day in terms of the National Economy as a whole. Concepts like Gross National Product, Aggregate Consumer Spending, or Total Employment, which some twenty years

ago were relegated to the pages of academic periodicals, became an indispensable part of the business man's vocabulary. They can be heard in convention halls and met in the pages of trade journals. Due to ever-widening efforts of Federal agencies and of independent research organizations we are in possession of statistical figures mea-

suring the year to year and even month to month changes in these strategic indices of general economic conditions. Not only the analysis of past experience but also the prediction of future trends—some of which were presented in the pages of Dun's Review—run in terms of similar over-all totals. Every week new estimates of the "National Income

in 1950," "Gross National Product in 1948," or of "Total Non-Agricultural Employment in 1952" are tossed in the arena of public discussion.

These over-all concepts are invaluable aids in dealing with the broad problems of economic policies since they enable us to describe and to analyze the general outlines of the economic scene without getting involved in perusal and recitation of innumerable arrays of facts and figures.

The simplified picture which reduces the complex structure of the national economy to a few aggregative totals supplemented by a small number of broadly conceived averages-however useful it may be for purposes of general orientation-can hardly serve, however, as a practical road map, a source of factual information to be used as a guide in practical economic action. The proverbial danger of losing sight of the forest while viewing the trees should not detract our attention from the opposite pitfall, the equally undesirable tendency of forgetting that the forest is after all nothing but an assemblage of a large number of separate

Anybody who has to deal with practical economic problems is fortunately reminded of this simple truth whenever he has to make an actual operational decision. More often than not one is inclined to give exclusive atten-

tion to specialized information directly pertaining to the subject of immediate concern and to forget the larger picture in which these particular details contribute only one of many important elements.

Tasks Confronting Analyst

Thus we find two different approaches to the factual analysis of our economic problem side by side. One moves on the high plane of simplified generalizations and encompasses the strategic factors of general economic change, but at the same time it lacks contact with the special condition of the particular concrete situation—be it the question of wages in the steel industry or the problem of markets for ready-made clothing. The other attacks the issue in terms of these special conditions but is unable to consider them in relation to the state of the National Economy as a whole.

The task of overcoming this artificial dualism constitutes one of the most urgent problems facing the practical business analyst.

What we call the American National Economy is nothing other than an intricate combination of many different branches of economic activity. It is the direct and the indirect mutual relationship of these separate "industries" which makes each of them—be it the steel making, or cotton farming, retail trade,

or coastal shipping—depend upon the state of the national economy as a whole, *i.e.*, upon the conditions prevailing in all the other branches of production, distribution, and consumption.

Thus the challenging problem of unifying the two opposite approaches described above into a single unified system of business analysis sets before us three distinct but closely allied tasks:

(a) Collection of detailed, accurate and up-to-date statistical information on existing inter-relationships of all the different branches of production, transportation, distribution, and consumption.

(b) Development of a simple nontechnical form of presentation of this information to its potential users.

(c) Development of efficient technical methods of utilizing the new body of statistical information for purposes of practical business analyses.

Explanatory studies along the lines indicated above, initiated at Harvard University some thirteen years ago and developed during the last three years in the Bureau of Labor Statistics of the United States Department of Labor, have reached by now a stage of development the result of which can claim the attention of business economists.

An industry—and in the context of the following discussion this term is used to indicate any distinct branch of economic activity be it a line of manu-



INDUSTRIES OF ORIGIN AND OF DESTINATION

FOR GOODS AND SERVICES, 1939

(IN MILLIONS OF DOLLARS

\$10,000,000,000	
\$5,000,000,000 to \$10,000,000,000	
\$1,000,000,000 to \$5,000,000,000	
Over 25% of Purchasing Industry's Total	
□ 10 to 25% of Producing Industry's Total	

Over

The inter-relationships of the various industries, or segments of the economy, are portrayed in this chart which is turther explained in the accompanying article by Dr. Wassily Leontief. This approach facilitates study of the effects upon the rest of the economy of changes in any one part, such as, for example, changes in volume or in prices. The figures are based upon preliminary United States Bureau of Labor estimates.

Each horizontal row lists for one industry the dollar amount (in millions) of its output absorbed by each of the other twenty industries; each column shows for one industry the dollar amount of its purchases from the other twenty.

The total output of any industry includes both the value of domestic output and the value of imported commodities of the type which is produced in that industry... The name of industry to has been abbreviated; the full name is "Lumber, Paper, and Their Products; Printing and Publishing." ... Government is so used as to exclude all activities which have a commercial counterpart. Government output is equal to the total amount of taxes; its outlay to its total expenditures.

The output of Households is equal to the sum of all income payments to individuals and the outlay of households to the total volume of consumer purchases. In most industries the largest single purchase is from Households in the form of personal, entrepreneurial, and capital services. . . . The difference between the total output and the total outlay shown for any industry is the measure of investment undertaken by the industry.

D S	NATION ERVICES, 1939 DOLLARS)	TOTAL GROSS OUT PUT	I. AGRICULTURE AND FISHING	2. FOOD, TOBACCO, AND KINDRED PRODUCTS	3. FERROUS METALS	4. MOTOR VEHICLES, INDUSTRIAL AND HI ING EQUIPMENT	5. METAL FABRICATING	6. NONFERROUS METAL AND THEIR PRODUC
	TOTAL GROSS OUTLAYS		13,745	18,923	3,721	7,979	9,102	3,233
	I. AGRICULTURE AND	12,475	950	4,998				
	2. FOOD, TOBACCO, AND KINDRED PRODUCTS	18,799	645	1,530				
	3. FERROUS METALS	3,887	24		1,188	479	861	43
0	4. MOTOR VEHICLES, INDUSTRIAL AND HEAT- ING EQUIPMENT	7,672	188	72	4	1,645	7	9
Z	5. METAL FABRICATING	8,692	433	306	37	611	717	12
PRODUCIN	6. NONFERROUS METALS AND THEIR PRODUCTS	2,956	5	23	109	117	221	1,325
	7. NONMETALLIC MINERALS AND THEIR PRODUCTS	2,734	14	137	29	70	64	6
00	8. FUEL AND POWER	13,592	474	168	318	102	164	65
RC	9. CHEMICALS	4,911	357	133	36	34	108	3
٩	10. LUMBER, PAPER, AND THEIR PRODUCTS	8,893	94	260	1	35	63	6
	II. TEXTILES AND LEATHER	12,032	66	43		105	8	1
>	12. RUBBER	1,170	54	3		195	22	
~	13. ALL OTHER MANUFACTUR- ING	2,360	2			13	23	
ST	14. CONSTRUCTION	10,089	342	70	41	24	42	8
	15. TRANSPORTATION	7,621	793	392	266	108	135	75
NDC	16. TRADE	18,562	O 1,446	○ □ 4,052	78	O 1,260	01,254	25
_	17. FOREIGN COUNTRIES (IMPORTS FROM)	3,121	337	824	22	10	17	331
	18. BUSINESS AND CONSUMER SERVICES	20,571	550	376	13	85	77	4
	19. GOVERNMENT (TAXES)	15,300	200	1,481	157	314	335	96
	20. HOUSEHOLDS (INCOME PAYMENTS)	73,676	5,424	○ □ 2,I03	886	2,048	2,743	0 □ 625
	21. UNALLOCATED AND STOCKS	23,845	1,347	O 1,952	o 536	724	2,241	o 599
						PAGE 24, FE	BRUARY, 1946 (OUN'S REVIEW

T	R	1	F	V	R	CH	1 A	S	IN	G				
7. NONMETALLIC MINERALS AND THEIR PRODUCTS	8. FUEL AND POWER	9. CHEMICALS	10. LUMBER, PAPER, AND THEIR PRODUCTS	II. TEXTILES AND LEATHER	12. RUBBER	13. ALL OTHER MANUFACTUR- ING	14. CONSTRUCTION	15. TRANSPORTATION	16. TRADE	17. FOREIGN COUNTRIES (EXPORTS TO)	18. BUSINESS AND CONSUMER SERVICES	19. GOVERNMENT	20. HOUSEHOLDS	21UNALLOCATED AND STOCKS
2,741	13,872	4,927	8,929	12,570	1,213	2,413	10,089	8,186	18,562	3,319	20,811	13,631	71,475	23,517
		176	185	583		7	167			O 453		10	4,485	461
		47	7	156		2				269	1	1	0 15,750	391
			64				5 9 2	69		171	1	11		383
10	100	7	96	102	16		423	77	76	409	3	99	2,720	
19	109				10	10	00			0	195			
5	137	40	63	16		12	1,301	380	108	544		340	1,317	2,118
0 🗆	51	89	5	1		50	0 =			159	6	20	38	589
280	6	127	51	2	5	8	1,401	13	2	65 0 519	2	4	278	I70
185	2,452	197	202	138	33	44	127	768	712	519	111	263	4,727	1,823
17	13	828	0 🗆	326	31	42	426	16		203	38	17	1,491	672
46	4	69	2,152	56	5	29	910	9	270	142	1,406	131	1,830	1,375
2		13	84	3,122	58	15	2		8	168	29	32	7,847	
	ı	4	1	30	20	2	4	32	20	41	33	16	332	360
		1	10	117		180	16	30	55	71	373	12	1,063	394
18	821	18	42	22	4	11		828	189		251	4,207	3,151	
O 295	2,200	222	387	52	31	8		138	4	103		100	1,819	493
O 394	0 0	0 800	O 995	○ □ 2,928	O 270	O 550								2,618
63	81	161	259	381	0 196	61		286						92
12	39	183	63	83	41	16	4	73	686	2	404	25	○ ■ 15,684	2,151
70	00		269	195	59	62	71	800	1,755	2	○ □ 2,389	23	3,700	1,259
0	0 🖷	0 🗆	00	00	00		0	0 13	• 🗆		• 🗆	0.210		• 🗆
709	2,710	0	2,097	2,626	280	750	3,869	4,667	9,268		0 🗆	8,343	5,242	6,148
622 PAGE 25, FEBR	1,383	819	1,777	1,634	164	564	632		5,409		3,442		.	

facturing, agriculture, or mining, transportation, or a service industry-is connected with the rest of the national economy essentially through its sales on the one side and its purchases on the other. Thus reasonably detailed information on the distribution of sales and the sources of purchases of each one of the principal branches of the national economy—including households as well as governmental and other public agencies-must constitute the basis of any factual analysis of inter-industrial relationships. A table on this page shows the distribution of the sales of ferrous metals in 1939, the last normal pre-war

Similar sales distributions are compiled for all the other branches or agriculture, manufacturing, trade, and transportation. All these data are collected on the basis of a common industrial classification which makes it possible to combine them in a single co-ordinated table showing the relationship of all the different parts of the national economy to each other. Without a standard system of recording all the thousands of figures would represent at best not more than a pile of material for a comprehensive statistical handbook; reduced as they are to a common denominator these separate bits of information can easily be fitted together-like pieces of a large jigsaw puzzle-into a well integrated picture of the whole economic system. A description of inter-industrial relationships as they existed in the American Economy of 1939 is presented in a chart on pages 24 and 25.

Relationships Depicted

Arranged in a checkerboard fashion, it has as many horizontal rows as there are separate industries and industrial distributions. The distribution of ferrous metals and their products appears, for example, in the third row of this combined chart. The first row describes the distribution of the products of agriculture and fisheries. The second contains the distribution of the output of the food, tobacco, and kindred products industries, and so on. This table has 21 rows and 21 columns, not counting the totals of gross outputs and of gross outlay, respectively entered in

(Continued on page 42)

DISTRIBUTION OF FERROUS METALS SALES BY VARIOUS CLASSES OF PURCHASES, 1939

INDUSTRY TO WHICH SOLD TOTAL, ALL INDUSTRIES	Value of Sales in millions of dollars 3,887
Group 1, Agriculture and Fishing, total	24
Group 3, Ferrous Metals, total	
Blast Furnaces	2
Steel Works and Rolling Mills 910	
Group 4, Motor Vehicles, Industrial and Heating Equipment	
total	479
Automobiles	
Industrial and Household Equipment, n.e.c. 109	
Group 5, Metal Fabricating, total	861
Iron and Steel Foundry Products 4	
Shipbuilding 30	
Firearms	
Agricultural Machinery 5: Engines and Turbines	
TE :	
Machine Tools	
Merchandising and Service Machines	
Electrical Equipment, n.e.c.	
Iron and Steel, n.e.c. 63	
Group 6, Non-ferrous Metals and Their Products, total	43
Non-ferrous Metal Manufacturers and Alloys 42	
Group 10, Lumber, Paper, and Products; Printing and Pub	
lishing	
Furniture and Other Manufactures of Wood 6.	l .
Group 14, Construction, total	592
Group 15, Transportation, total	
Steam Railroad Transportation 69	
Group 17, Foreign Countries (Exports to), total	171
Group 18, Business and Consumer Services, total	I
Repair Services Other Than Automotive	
Group 19, Government and Households, total	12
Government	
Households	
Group 20, Unallocated and Stocks, total	383
Stocks	6.0
Unallocated	100

EMPLOYMENT IN VARIOUS INDUSTRIES DEPENDING ON 1939 EXPORTS ENPRESSED AS A PERCENTAGE OF THE TOTAL 1939 EMPLOYMENT IN THESE INDUSTRIES

Eve	ort Dependen
GROUP OF INDUSTRIES	%
Non-ferrous Metals, Prod-	
ucts	23.0
Fuel and Power	16.3
Ferrous Metals	16.1
Chemicals	15.9
Agriculture	15.1
Rubber	15.1
Motor Vehicles and In-	
dustrial Equipment .	15.0
Transportation	14.9
Metal Fabricating	13.6
Textiles and Leather	12.8
Food	12.4
Trade	11.8
Lumber and Paper, Print-	
ing and Publishing	11.1
Business and Consumer	
Services	10.1
Non-metallic Minerals	7.8

EFFECTS OF A 10% INCREASE IN PRICE OF FERROUS METAL ON OTHER COMMODITIES AND SERVICES, IN TERMS OF THE 1939 INTER-INDUSTRIAL RELATIONSHIP

	rice Increase
COMMODITY GROUP	10
Agriculture and Fishing	.25
Food, Tobacco, Like Products	.22
Ferrous Metals	10.00
Motor Vehicles, Industrial and	
Heating Equipment	1.03
Metal Fabricating	1.32
Non-ferrous Metals and Prod-	
ucts	.83
Non-metallic Minerals and	
Products	.19
Fuel and Power	.31
Chemicals	.25
Lumber, Paper, and Products,	
Printing and Publishing	-33
Textiles and Leather	.17
Rubber	.16
All Other Manufacturing	.17
Construction	.98
Transportation	-33
Trade	.09
Foreign Countries (imports	
from)	1.53
Business-Consumer Services	.20



ENNSYLVANIA STATION, NEW YORK-ACME PHOTO

THE TREND OF BUSINESS

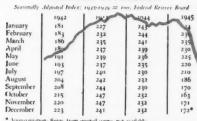
PRODUCTION . . . PRICES . . . TRADE . . . FINANCE

The strong consumer demand was reflected in a record-breaking retail volume and increased retail prices as the year ended. Production and total employment rose slightly; business failures hit a new low. Commodity and stock prices and business loans by banks increased.

AT the end of 1945 industrial production began to recover from the eight-month decline which reached a low point in October. In November production was at a level 71 per cent above the 1935-1939 average (Federal Reserve Board); this was 5 per cent higher than in October. Output continued to rise in December until the end of the month; then some plants shut down for longer Christmas and New Year holidays than during the war years. The value of total production for the year 1945 was \$196 billion, only slightly below 1944's \$196.7 billion.

In October 560,000 workers were involved in industrial disputes with a

Industrial Production



loss of 1.3 per cent of the available working time; in November the number dropped to 405,000 with a loss of 1.1 per cent of the working time (U. S. Bureau of Labor Statistics). Some 400,000 workers were estimated to have been on strike at some time during December and this number was raised to about 415,000 at the end of the first week in January. More working days were lost through strikes and lockouts in 1945 than in any other year since 1919 after World War I (U. S. Bureau of Labor Statistics). The average length of time lost by each worker involved in strikes and lockouts more than tripled after V-J Day. Besides the direct effect of the absence of these workers on production, some industries, such as the automobile industry, were hampered by a lack of parts produced by struck plants.

The Federal Reserve Board's index of industrial production (1935-1939 = 100, seasonally adjusted, physical volume) was 168 in December, a later figure than the one in the chart.

Durable goods production increased from October to November for the first time since February and a further increase was estimated for December. Electrical appliance output continued to climb upward toward the pre-war level. Steel output declined slightly from the level reached in November. Automobile output was a mere trickle in December due to parts shortages and the General Motors strike. Production of automobiles, trucks, and buses increased from 13,920 in the week ending January 5 to 23,320 in the next week (Ward's Automotive Reports). The latter was about 27 per cent of production in the corresponding week of 1939.

Employment

	1942	1943	1944	1945
lanuary	49.1	51.4	50.4	50.1
February	49.6	51.2	50.3	50.6
March	50.2	51.2	50.5	50.8
April	51.1	51.6	51.3	51.2
May	500	5.6	97	51
lune	53.7	54.0	53.52	52.1
July	54-3	54.8	54.0	54-3°
August	54-4	54-4	53.2	53-5
September	52.0	53.0	52.3	51.3
October	53.2	52.2	52.2	51.6
November	52.6	51.7	51.5	51.7
December	52.2	51.0	50.6	51.8

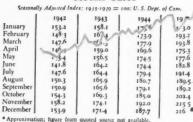
Although there was little increase in the production of building materials, private construction increased further in December; the 15 per cent decline in public construction pulled the total value down slightly from November. Total new construction in 1945 amounted to about \$4,690 million compared with \$3,935 million in 1944, a 19 per cent increase (U. S. Department of Commerce).

Total manufacturers' new and unfilled orders were generally high. New and unfilled orders of paperboard declined slightly from November to December; new orders for lumber and zinc rose. Backlogs of orders for railroad cars amounted to about 3 months production, for steel 6 months, and for machine tools almost 7 months. Orders for airplanes were far below the war level but were equal to about one-eighth of 1945's production.

Freight carloadings of manufactured goods declined slightly from the end of November. Shipments of lumber, case goods, and petroleum products dropped in December; those of electrical appliances rose from 10 to 75 per cent of their pre-war level. The high demand for most products prevented any considerable stockpiling.

Employment-Accompanying the sustained level of production was a slight increase in total employment from 51.7 million in November to 51.8 million in December (U. S. Bureau of the Census). At the same time unemployment grew larger, increasing from 1.7 million in November to 2.0 million in December. After the rise in initial unemployment claims in November, total unemployment claims rose to over 1.8 million in December and then declined in the last week of 1945 to 1.6 million. Total non-agricultural employment increased about 1 per cent from October to November with manu-

Retail Sales



facturing employment gaining less than 1 per cent and trade over 3 per cent (U. S. Bureau of Labor Statistics). Similar gains were estimated for December. Reports of small increases in employment in carpet, wool, and cotton textile mills were received.

Income—Although employment increased slightly, total income payments declined almost 4 per cent from October to November and a less than seasonal increase was estimated for December. Seasonally adjusted, the U. S. Department of Commerce's index increased 1.5 per cent from October to November. Total income payments for the year 1945 were about \$160 billion (U. S. Department of Commerce); this compared with \$156.8 billion in 1944.

The income of farmers from marketings in November 1945 was 1 per cent above that in November 1944. Allow-

Consumers' Price Index

1943 1944 1945 1942 127.1 126.9 126.8 February March April May 124-1 123-1 124-8 July 125.4 129.0 117.0 123.9 129.4 August September October November December 123-4 123-9 124-4 124-2 124-4 126.4

Approximation: figure from quoted source not available

ances to service men's dependents, mustering-out pay, and unemployment compensation moved upward in 1945 to reach an annual rate of over \$10 billion at the end of the year (U. S. Department of Commerce).

Wages and salaries in the fourth quarter of 1945 dropped about 12 per cent from the first quarter. The steep fall of manufacturing payrolls in earlier months had tapered off by December; hourly wage rates were increased in scattered cases.

Trade—A record December brought to a close a record year of consumer buying. Consumers spent about \$103.5 billion for goods and services in 1945, 5 per cent above the \$98.5 billion in 1944. When corrected for price changes the increase was less than 3 per cent. Consumers spent 89 per cent of their incomes in 1935, 86 per cent in 1940, and by 1944 were spending only 63 per

Wholesale Commodity Prices

| Index: 1926 = 100; U. S. Bureau of Labor Statistics | 1942 | 1943 | 1944 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 1945 | 19

· Approximation: figure from quoted source not available

cent. In 1945, as the per cent saved declined, 65 per cent of consumers' incomes were spent.

Christmas buying, re-outfitting of veterans, and the purchase of longunobtainable durable goods pushed December retail volume about 15 per cent above December 1944. Durable and non-durable goods volume in the fourth quarter of 1945 was well over the fourth quarter of 1944; the percentage gain in durable goods purchases was twice as large as the rise in non-durable goods volume. When consumers were unable to find what they wanted in retailers' depleted stocks they bought products in other lines. Little price resistance was noted except in the case of furs.

Retailers reported that stocks had been reduced so low that buying in general in the early part of January was only slightly above January 1945; volume was reported to be below a year ago in some cities. Traditional January clearance sales were held, but little emphasis was placed on them.

In late December trading in the wholesale markets was curtailed by the holidays. Some retailers claimed that deliveries were disappointingly slow; deliveries increased in some products, such as consumers' durable goods. Out-of-town buyers visited the New York markets in moderately larger numbers this December than last. Wholesale volume for 1945 was estimated at a level slightly above a year ago.

House furnishings and men's and boys' Spring apparel shows were opened in January and attendance in the first days was at record heights. A greater variety was displayed at floor covering exhibits. Most selling was on allotment with uncertain delivery dates.

Railroad passenger traffic in December was boosted over a year ago by returning veterans, service men on leave, and heavy civilian travel, although it was lower than a year ago during most of 1945. There was a record number of local and long distance telephone calls at Christmas time between New York City and various parts of the country and overseas.

Prices—Evidences of continued strong consumer demand were found in price increases as well as in the large volume of retail trade. Prices of food, clothing, and housefurnishings continued to rise. The U. S. Bureau of Labor Statistics' consumers' price index (1935-1939 = 100) was 129.2 in November and was estimated to have increased fractionally in December to a level almost 2 per cent above December 1944.

Wholesale prices generally moved upward in December. This increase was shared by farm products, foods, and other commodities. Lowered supplies of some agricultural products in

Industrial Stock Prices



the markets, due to bad weather, heavy holiday demand, and rises in OPA price ceilings for some products, resulted in higher prices for livestock, eggs, fresh produce, cotton, oats, flour, anthracite, farm machinery, and lumber. Domestic wool prices were lowered and in the mid-continent region gasoline prices declined. The U. S. Bureau of Labor Statistics' wholesale commodity price index (1926 = 100) rose to 106.8 in November and was estimated to be higher in December.

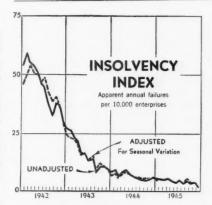
The prices received by farmers increased from 205 in November to 207 in December (1909-1914 = 100) and the parity index reached a new 25-year high of 176 (U. S. Department of Agriculture). Farm real estate values have increased tremendously during the war.

Finance—Stock prices as well as commodity prices in December were higher than in November. Although

SIGNIFICANT INDICATORS

COMPILED BY THE PUBLISHERS OF "DUN'S REVIEW"

More detailed figures appear in Dun's STATISTICAL REVIEW.



THE FAILURE RECORD

		Dec.	Year	Year Per Ce	nt
	Dun's Insolvency Index *	1945	1945	1944 Chang	et
	Unadjusted	2.5	4.2	6.5 - 35	5
	Adjusted seasonally	2,5	0.0	**	
	NUMBER OF FAILURES	42	810	1,222 - 3	\$
	NUMBER BY SIZE OF DEBT				
	Under \$5,000	7	270	452 - 40)
	\$5,000-\$25,000	16	343	549 - 38	3
,	\$25,000-\$100,000	13	146	175 - 17	7
	\$100,000 and over	6	51	46 + 11	l.
	NUMBER BY INDUSTRY GROUPS				
	Manufacturing	23	280	352 - 20)
	Wholesale Trade	2	61	94 - 35	5
	Retail Trade	10	290	493 - 41	I.
	Construction	2	92	164 - 44	1
	Commercial Service	5	87	119 - 27	7

 (Liabilities in thousands)

 CURRENT LIABILITIES.....
 \$1,824\$30,395\$31,660
 4

 TOTAL LIABILITIES......
 \$1,824\$34,345\$35,607
 4

* Apparent annual failures per 10,000 enterprises. † Per cent change of 1945 from 1944.

FAILURES BY DIVISIONS OF INDUSTRY

(Current liabilities in		_Nun		_Liab	ilities-
	thousands of dollars)	1945	1944	1945	1944
	MINING, MANUFACTURING	280	352	17,247	20,172
	Mining-Coal, Oil, Misc	17	13	2,487	1,928
	Food and Kindred Products	14	30	527	1,498
	Textile Products, Apparel	19	30	311	610
	Lumber, Lumber Products	49	57	1,754	3,376
	Paper, Printing, Publishing.	14	25	640	351
	Chemicals, Allied Products.	15	15	261	483
	Leather, Leather Products	8	4	240	29
	Stone, Clay, Glass Products.	8	12	366	599
	Iron, Steel, and Products	24	18	1,481	575
	Machinery	54	84	3,644	5,242
	Transportation Equipment	19	21	3.567	4,004
	Miscellaneous	39	43	1,969	1,477
	WHOLESALE TRADE	61	94	1,214	1,700
	Food and Farm Products	15	36	429	545
	Apparel	6	3	53	30
	Dry Goods	3		41	
	Lumber, Bldg. Mats., Hdwr.	3	12	113	339
	Chemicals and Drugs	6	3	90	31
	Motor Vehicles, Equipment.	2	1	68	12
	Miscellaneous	26	39	420	743
	RETAIL TRADE	290	493	3,127	3,924
	Food and Liquor	51	110	361	1,004
	General Merchandise	31	14	80	80
	Apparel and Accessories	31	49	211	303
	Furniture, Furnishings	6	34	26	180
	Lumber, Bldg. Mats., Hdwr.	14	20	105	202
	Automotive Group	32	38	555	274
	Eating, Drinking Places	90	158	908	1,242
	Drug Stores	12	26	134	263
	Miscellaneous	43	54	747	286
	Construction	92	164	3,559	2,376
		-	****		
	COMMERCIAL SERVICE	87	119	5,248	3,488
	Highway Transportation	25	37	3,903	1,094
	Misc. Public Services	X X		175	
	Hotels	2	5	486	1,627
	Laundries, Cleaning, Dyeing	6	22	79	351
	Undertakers	3	7	26	69
	Other Personal Services	9	22	27	101
	Business, Repair Service	31	26	552	246

WHOLESALE FOOD PRICE INDEX

	commoditie			esale price per pou	nd
	1946		1945	1946	
Jan.	29\$	Jan.	30\$4.09	High \$4.15 Jan.	- 1
Jan.	2 4.12	Jan.	23 4.10	Low 4.04 Jan.	22
Jan.	15. 4.14	Jan.	16 4.10	1945	
Jan.	8 4.14	Jan.	9 4.09	High \$4.16 Nov.	
lan.	1. 4.15	lan.	2. 4.00	Low 4.04 Sept.	- 4

DAILY WHOLESALE PRICE INDEX

The index is prepared from spot closing prices of 30 basic commodities. (1930-1932 = 100.)

trasic commodition		1945				
	1946 Jan.	Dec.	Nov.	Oct.	Sept.	
1	*	181.25	179.52	177.71	175.29	
2	181.90	†	179-54	177-50	+	
3	181.92	181.30	179.63	177-43		
4	181.96	181.55	†	178.08	175.32	
5	181.96	181.89	179.83	178.15	174.48	
6	†	181.66		178.18	174.65	
7	182.49	181.75	180.26	†	174.39	
8	182.35	182.25	180.45	178.44	174-73	
9	182.32	†	181.68	178.49	t	
10	182,70	182.18	182.06	178.68	874.76	
11	182.69	182.26	+	178.68	175.03	
12	182.55	182.15			175.13	
13	+	181.91	181.56	178.58	175.07	
14	182.38	182.04	181.41	t	175.32	
15	182.72	181.96	181.53	178.55	175.38	
16	182.84	†	181.54	178.20	+	
17	182.88	182.03	181.79	178.48	175.11	
18	182.97	182.02	+	178.15	175.44	
19	182.93	182.03	181.66	178.21	176.04	
20	†	182.11	181.62	178.28	176.10	
21	183.00	181.97	182.03	+	175.82	
22	183.38	181.98		178.62	176.95	
23	183.46	+	181.75	178.46	+	
24	183.42		181.76	179.15	176.58	
25	183.41		+	179.11	176.04	
26	183.54	182.08	181.80	179.23	176.95	
27		182.33	181.88	179.19	176.99	
28		182.31	181.72	+	176.77	
20		182.16	181.40	179.06	177.18	
30		†	181.09	179.33	÷	
31		*		179.33		

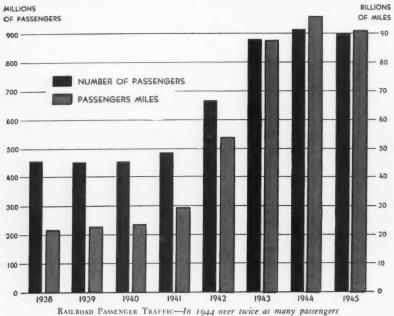
† Sunday. * Market closed.

BUILDING PERMIT VALUES-215 CITIES

Geographical	Dece	%	
Divisions:	1945	1944	Change
New England	\$5,320,403	\$2,176,613	+144.
Middle Atlantic	33,384,213	9,107,245	+266.
South Atlantic	19,058,114	3,374,598	+464.
East Central	46,494,268	9,557,048	+386.
South Central	47,619,489	4,800,703	+572.
West Central	13,435,923	3,371,011	+298.
Mountain	5,961,101	1,060,637	+462.
Pacific	32,734,721	5,985,432	+446.
Total U. S	\$204,008,232	\$39,433,287	+418
New York City		\$7,171,255	+145.
Outside N. Y. C		\$32,262,032	+477-

BANK CLEARINGS--INDIVIDUAL CITIES (Thousands of dollars)

	December		%
	1945	1944	Change
Boston	1,934,698	1,783,334	+ 8.5
Philadelphia	3,235,000	3,038,000	+ 6.5
Buffalo	275.411	282,050	- 2.4
Pittsburgh	1.073,134	1,224,264	-12.3
Cleveland	1,046,463	1,013,848	+ 3.2
Cincinnati	583,777	567,512	+ 2.9
Baltimore	736,476	741,703	- 0.7
Richmond	412,378	441,598	- 6.6
Atlanta	763,000	742,300	+ 2.8
New Orleans	424,247	397.537	+ 6.7
Chicago	2,591,300	2,406,167	+ 7.7
Detroit	1,173,582	1,579,329	-25.7
St. Louis	917,123	823,209	+11.4
Louisville	374,000	353,960	+ 5.7
Minneapolis	733.594	648,422	+13.1
Kansas City	915,007	866,301	+ 5.6
Omaha	334,746	319,370	+ 4.8
Denver	315,282	267,623	+17.8
Dallas	661,453	575,260	+15.0
Houston	539,648	512,575	+ 5.3
San Francisco	1,504,839	1,416,494	+ 6.2
Portland, Ore	324,480	364,977	- 6.5
Seattle	406,520	430,860	- 5.6
Total 23 Cities	21,276,158	20,778,693	+ 2.4
New York	35,166,917	29,724,214	+18.3
Total 24 Cities	56,443,075	50,502,907	+11.8
Daily Average	2,257,723	2,020,116	+11.8



RAILROAD PASSENGER TRAFFIC—In 1944 over twice as many passengers were carried by Class I railroads as in 1938 and almost 3½ times as many miles were travelled. As the war drew to a close, travel fell below the 1944 level and a slight decrease was estimated for 1945.—Eastern Railroad Presidents Conference.

daily trading volume and industrial stock prices declined during the month, the Dow-Jones average of 30 industrial stocks was slightly higher than in November. Department store and liquor stocks were particularly strong during the Christmas shopping period. In early January both stock prices and trading volume soared. Rail stock prices and bond prices also advanced moderately in December.

In the Victory Loan Drive Government bond buying by individuals surpassed the quota, but payroll deductions for bonds since V-J Day have declined faster than the payrolls themselves (Wall Street Journal).

The value of security issues in December was far higher than in either November 1945 or December 1944. A higher value of bonds was floated in 1945 than in any year since 1936, and a higher value of stocks than for any year since 1929. Commercial, industrial, and agricultural loans by Federal Reserve member banks in 101 cities increased from \$6,964 million in the week ending December 5, 1945, to \$7,258 million in the week ending January 2, 1946.

Money in circulation increased steadily until the day after Christmas and then dropped, as currency returned to banks after the heavy Christmas spending. Excess reserves of Federal Reserve member banks increased sharply in the week ending January 2, partly due to the drop in the amount of currency in circulation and partly to a drop in U. S. Treasury deposits.

Failures—Business failures at 42 in December, the lowest number in any month on record, brought to a close the lowest year in more than 50 years of failure history. Only ½ the number occurring in the lowest year of World War I, 810 concerns failed in 1945, the first time that annual failures have fallen below 1,000. The rate of decline, however, appears to be slackening, since failures in 1945 were down only 34 per cent whereas between 1942 and 1943 and 1943 and 1944 the decline amounted to some 60 per cent.

Dun's Insolvency Index, extending the December rate to an annual basis, indicated less than 3 concerns failing per 10,000 business enterprises, thus establishing a record low. The average failure rate for 1945 was 4.2, as compared with 6.5 in 1944 and 16.4 in 1943.

In number, failures were ½ lower than a year ago, but in aggregate volume of liabilities failures came within 4 per cent of equalling the 1944 total. This resulted from a rise in the number

of exceptionally large failures involving losses of \$100,000 or more. Meanwhile, concerns failing in all other size groups dropped to record low, the rate of decline varying inversely with the size.

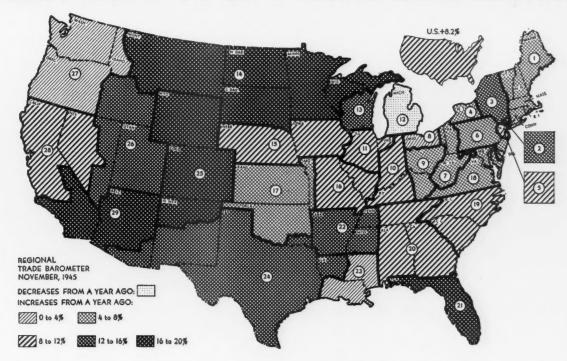
All trade and industry groups had fewer concerns failing than in 1944, but, as in the size groups, the rate of decline had lessened. The smallest decrease, 20 per cent, was in manufacturing, while the sharpest drop, around 40 per cent, occurred in retail trade and construction. Three-fours of the year's 810 failures were concentrated in manufacturing and retailing. In fact, the number of concerns failing did not reach 100 in any other industry or trade group. In terms of individual lines, only 4 had as many as 50 failures during the year-machinery manufacturing, food retailing, eating and drinking places, and building subcontracting. The largest number occurred in eating and drinking places with failures at 90. But even in this line, failures hit a new low in 1945. In fact, in nearly all lines failures were at the lowest level in failure history. Contrary trends appeared in only a few lines-there were slight increases this year in failures in mining, leather manufacturing, iron and steel manufacturing, miscellaneous public services, and business and repair services.

More than half the aggregate losses for the year were involved in the failure of manufacturing concerns. In 5 industrial lines, losses bulked higher than one million dollars—mining, lumber, iron and steel, machinery, and transportation equipment.

All except I (Louisville) of the 25 largest cities reported some concerns failing during 1945. Only 3 cities reported more than 20 concerns failing: Chicago with 32; Los Angeles with 51; New York heading the list with 201. A few cities, although their failures did not run as high as 20, reported more failures than in the previous year. Among these were Detroit, Cleveland, Buffalo, and New Orleans.

In both metropolitan districts and the balance of the country, the decline from last year's level was approximately the same. As in 1944, big-city failures exceeded in number those occurring in the rest of the country, but the liabilities were larger in the latter area.

TRADE ACTIVITY IN TWENTY-NINE REGIONS



RETAIL VOLUME AT PEAK

The United States Trade Barometer (seasonally adjusted) rose 225.2 in November from 208.7 in October. Barometer figures are compiled under the supervision of Dr. L. D. H. Weld, Director of Research, McCann-Erickson, Inc. Trade data are gathered by the local Dun & Bradstreet, Inc., offices.

Retail volume was at the highest point that it has ever been at this time of the year. November retail sales, at \$7.0 billion, were 13 per cent above November a year ago, the largest gain over a year ago since the peak production period of 1943 (U.S. Dept. of Commerce figures). According to fragmentary December data retail volume is at an all-time high for that month; the volume is estimated to be 15 per cent above December 1944. Reports concerning January volume indicate that it will drop seasonally.

The Dun's Review Trade Barometers, reflecting total consumer spending in the twenty-nine regions of the country, rose substantially over the levels of both a month ago and a year ago. The November U. S. Trade Barometer (1935-1939 = 100) was 247.7, the highest barometer index since the December 1944 peak. Adjusted for sea-

sonal variation the index was at a new peak of 225.2, which is 8.2 per cent above the level of a year ago. On an adjusted basis the rise from a month ago was 7.9 per cent; unadjusted it was up 18 per cent. The preliminary December barometer at 192.2 was 9.5 per cent over December 1944.

Regions with the largest barometer increases over a year ago were situated sporadically throughout the country and represented industrial, agricultural, and resort areas. The largest percentage gains were in the barometers of the Denver Region (25), the Florida Region (21), the Los Angeles Region (29), and the Minneapolis and St. Paul Region (14). The Detroit Region (12) barometer, having the only drop from November 1944, was below the level of a year ago for the fifth consecutive month. All regional barometers gained from the level of

a month ago. The barometers of the Milwaukee Region (13) and the Minneapolis and St. Paul Region (14) had the largest percentage increases in the month. Detroit Region (12) barometer had the smallest gain, 1.2 per cent.

Unemployment was rising in the Atlanta and Birmingham Region (20), and was below official expectations in the North and South Carolina Region (19). In the Portland and Seattle Region (27) production in the lumber mills rose with the labor shortage easing.

In the Iowa and Nebraska Region (15) Iowa farmers in 1945 attained one of the highest levels of production in the State's history. In the Florida Region (21) tangerine production equalled last year's high level. Livestock and Winter crops in the Los Angeles Region (29) were satisfactory.

(Regional Reports on page 32)

TRADE ACTIVITY IN TWENTY-NINE REGIONS -- CONTINUED

REGIONAL TRADE BAROMETERS

United States								
United States			Nov. Nov.	Oct.	REGION	Nov.	Nov.	Oct.
5. Ghichinda, Columbus 223.6 + 7.4 + 7.5 24. ICas 27.5 + 13.6 + 10. Indianapolis, Louisville 243.5 + 10.4 + 7.0 25. Denver 223.6 + 17.5 + 11. Chicago 212.6 + 8.8 + 11.2 26. Salt Lake City 250.2 + 13.2 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13.5 + 13.6 + 13	2. 3. 4. 5. 6. 7. 8. 9.	United States	1945 1944 225.2 + 8.2 180.7 + 6.1 209.4 +13.6 216.4 +13.1 228.4 + 5.2 187.9 + 8.6 204.2 + 5.7 197.9 + 5.0 220.7 + 1.7 223.8 + 7.4 243.5 +10.4	1945 + 7.9 + 5.4 + 11.5 + 10.4 + 14.8 + 12.2 + 7.5 + 6.3 + 7.1 + 7.5 + 7.0	15. Iowa, Nebraska 16. St. Louis 17. Kansas City 18. Maryland, Virginia 19. North, South Carolina 20. Atlanta, Birmingham 21. Florida 22. Memphis 23. New Orleans 24. Texas 25. Denver	1945 218.5 224.4 233.9 245.7 252.5 284.8 295.9 249.6 238.9 275.3 223.0	1944 +10.5 +10.9 + 6.4 + 4.6 + 9.3 +11.2 +17.3 +14.9 + 13.8 +17.5	1945 + 2.1 + 11.5 + 8.5 + 12.7 + 8.0 + 3.9 + 13.8 + 6.8 + 3.5 + 5.6 + 8.4
12. Detroit 213.9 - 3.3 + 1.2 27. Portland, Seattle 266.2 + 3.2 - 4 13. Milwaukee 245.8 + 12.6 + 17.8 28. San Francisco 253.6 + 9.3 - 4	12. 13.	Detroit	213.9 - 3.3 $245.8 + 12.6$	+ 1.2 +17.8	27. Portland, Seattle 28. San Francisco	266.2 253.6	+ 3.2 + 9.3	+13.8

The Regional Trade Barometers are compiled under the supervision of Dr. L. D. H. Weld. The barometers are seasonally adjusted; 1935-1939 = 100.

Regional trade information is based upon opinions and comments of business men gathered and weighed by the local Dun & Bradstreer offices. Payroll and employment data are from Government sources. Most of the information summarized here represents final figures for November.

Department store sales are from the Federal Reserve Board and are for the four weeks ended December 29, 1945.

More complete barometer figures and more detailed regional information is published in Dun's STATISTICAL

HIGHLIGHTS OF TRADE ACTIVITY

- New England Region—Barometer gains over a month ago and a year ago less than average increases for country. Wholesale trade was about 6% over a year ago. Shoe industry more active with cased labor situation.
- New York City Region—Barometer increases over a month ago and a year ago above average for country. Wholesale trade had small increase over a year ago. Employment and payrolls 14 and 15%, respectively below a year ago; hotel sales up 13%.
- 3. Albany, Utica, and Syracuse Region—Barometer gains over a year ago and a month ago excellent. Syracuse department store sales about 22% above a year ago. Unemployment claims rose slightly in the November to December period.
- Buffalo and Rochester Region—Barometer increase over month ago fourth highest in country. Slight wholesale gains for a year ago; large payroll and employment decreases.
- Northern New Jersey Region—Barometer had large gains over the levels of a year ago and a month ago. Wholesale volume well above a year ago. Newark department store sales about 14% above last year.
- 6. Philadelphia Region—Barometer increases over a year ago and last month below average. Wholesale trade in region well above a year ago. Philadelphia department store sales up 11%. Collections even-to-poorer than a year ago.
- Pittsburgh Region—Barometer gains over a year ago and a month ago below average. Wholesale trade slightly above a year ago. Employment and payrolls off 20 and 30%.
- Cleveland Region—Barometer gain over year ago smallest in country. Wholesale trade generally above level of a year ago. Department store sales up about 10%.
- 9. Cincinnati and Columbus Region—Barometer gains above a year ago and a month ago below average. Wholesale volume well above a year ago; Cincinnati and Columbus department store sales each up 17%. Collections even with a year ago.
- Indianapolis and Louisville Region—Barometer had large gain over a year ago, rise in month small. Wholesale trade generally well above a year ago; collections steady.
- 11. Chicago Region—Barometer gain in month large. Chicago wholesale trade 8% above a year ago; collections steady-to-better. Department store sales up 12% in Chicago.
- 12. Detroit Region—Barometer had smallest gain in month; only one to decline from level of a year ago. Detroit wholesale trade even with a year ago, Grand Rapids up 15%.
- 13. Milwaukee Region—Barometer increase in month largest for all regions. Milwaukee wholesale trade 10% above a year ago. Employment and payrolls off 20 and 30% respectively; collections steady-to-better. Department store sales considerably above a year ago.
- 14. Minneapolis and St. Paul Region—Barometer had large gains over a year ago and a month ago. Wholesale trade about even with a year ago; collections off slightly.
- 15. Iowa and Nebraska Region—Barometer increase over a year ago larger than average. Wholesale trade slightly above last year; Nebraska department store sales up 20%. Iowa employment 6% below a year ago, payrolls off 7%.

- 16. St. Louis Region—Barometer gains over a year ago and a month ago larger than average. Wholesale trade 10% above a year ago; department store sales up 13%.
- 17. Kansas City Region—Barometer index practically unchanged for third consecutive month. Wholesale trade in region well above a year ago. Manufacture of oil field equipment temporarily off. Department store sales had large increase over a year ago.
- 18. Maryland and Virginia Region—Barometer index rose to 9% above the U. S. level. Wholesale trade in region about even with a year ago; department store sales up about 9%. Richmond leaf tobacco yield up 6%. Department store sales about 10% above a year ago.
- 19. North and South Carolina Region—Barometer index unchanged at 12% above level of U. S. Wholesale trade about even with a year ago. Unemployment below expectations.
- 20. Atlanta and Birmingham Region—Barometer increase over a year ago large, gain in month small. Department store sales 25% above a year ago. Unemployment rising.
- 21. Florida Region—Barometer increase over a year ago second largest in country. Wholesale trade well above a year ago. Tangerine production equalled last year's high level. Department store sales well above a year ago.
- 22. Memphis Region—Barometer gain over a year ago large, rise in month small. Wholesale trade in the region well above a year ago. Department store volume had a large increase. Collections steady-to-better than a year ago.
- New Orleans Region—Barometer gains over a year ago and a month ago small. Rice crop yield equalled 1944. Collections steady-topoorer than a year ago.
- 24. Texas Region—Large barometer increase over a year ago. Houston wholesale trade increased 30%; collections steady. Petroleum production in region dropped 11%. Department store sales in region were well above the level of a year ago.
- 25. Denver Region—Barometer had largest increase over level of a year ago. Denver carload receipts of livestock 9% above a year ago. Department store sales up 16%.
- 26. Salt Lake City Region—Barometer index at highest point so far in 1945. Wholesale trade 17% above a year ago. Coal mining at a peak, metal mining increasing.
- 27. Portland and Seattle Region—Barometer had small gain over a year ago, large increase in month. Wholesale trade well above a year ago. Production increasing in lumber mills with easing labor shortage. Department store sales moderately above a year ago.
- 28. San Francisco Region—Barometer increases over a year ago and a month ago larger than average. Wholesale trade about even with 1944. San Francisco employment 29% below a year ago; payrolls dropped 73%. Oakland value of building permits four times as large as a year ago.
- 29. Los Angeles Region—Barometer index jumped to highest point so far this year. Los Angeles employment 42% below a year ago, payrolls down 52%.



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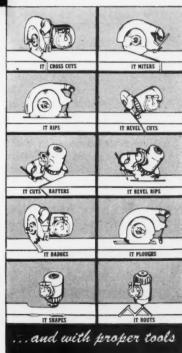
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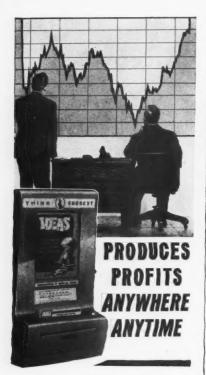
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DIRECTORS

(Continued from page 15)

controls aid directors in carrying out this function. They serve as the basis for the directors' most effective approach, which is to ask discerning questions from an independent outside point of view. Also, directors arrange for, control, and follow outside audits, and in general maintain vigilance for the welfare of the whole enterprise.

Referred to as frequently as were the duties of directors listed above was a popular concept as to what they should not do. "Directors should not become involved in operations except as they have official executive responsibilities ... otherwise there would be confusion and disruption of executive authority."

Directors are awakening today to their responsibilities. There is a wide-spread concern among them to know their functions and a desire to perform them properly. Corporation directors are making exceedingly important contributions to business development, irrespective of the criticisms leveled against them and misunderstandings which have existed.

It is apparent from much testimony and evidence that in some companies the duties of directors are recognized as being vastly different from what they were considered to be in the 1020's. One director related that he had attended board meetings in that period at which the minutes were submitted for approval before any discussion had occurred. Frequently it was reported that formerly it had been considered bad taste to discuss such problems as individual executive salaries, current earnings, proposals for the purchase of companies, and other expansion plans. Executives had defended this attitude because they feared leaks of confidential information. Much of the secrecy and lack of frankness between executives and directors has been dispelled: generally questions of importance are now brought to the directors for dis-

Some important developments that have appeared are:

- 1. During the last decade, many directors have begun to recognize more clearly their direct and implied liabilities.
 - 2. For the first time in the experience



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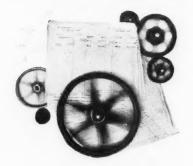
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of many business men, companies find it difficult to secure able men as directors, and able men are resigning from boards. The supply if further narrowed by the policy of a number of companies, even some with "outside" directors themselves, which do not let their own executives serve on boards of other companies.

3. Because of their liabilities, certain directors have started to think in terms of the question, "It this a safe step for me to approve?" rather than, "Will this help the company progress and succeed?"

4. Directors are more concerned over what their proper responsibilities are, and some companies are defining them.

5. They are attending meetings more regularly and devoting more time to fulfilling their responsibilities.

6. They are considering ways of improving directorates.

7. Salaries for directors are being advocated by some executives, directors, and others.

An Able Director

There is no question but that a good director first is an able man of unquestioned personal integrity. He has courage and sound principles of business ethics. He advances and supports constructive policies for the welfare of the company regardless of conflicts with his personal interest.

Also, a good director has a background that permits him to acquire rapidly a competent grasp of the problems of the specific company in their true perspective. He has administrative skill or understands the administrative process. He has had wide experience and a broad knowledge and understanding of men and affairs. He is independent in his questions and in his judgment. He makes himself available for meetings and consultations. He is deeply interested in the success and welfare of the company in which he is a director, and he is unquestionably loyal to it. If he is proficient in any field of special interest to a specific corporation, as for example, research, the law, or labor relations, he may make contributions which are of especial importance.

Finally, able directors have a broad social point of view, an awareness of current revolutionary changes in the

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Public Benefits will be Great in the NATION'S HIGHWAY PROGRAM

A large proportion of the nation's highways throughout the nation are scheduled for improvement in the next few years. This means an era of better, safer driving.

So tremendous a job is one for experts, capable of directing the work with the maximum economy, efficiency, speed and consideration for the needs and convenience of the public.

Highway officials, engineers and contractors have the experience, the technical knowledge and the determination to handle the work most effectively. Moreover, in carrying out this great modernization program, they know that it is essential to minimize delays and inconvenience to the public, which will be driving more than ever after so many restrictive years. A.G.C. contractors have an important place in this program. They can be depended

upon to serve faithfully and well, because of the business principles for which the A.G.C. emblem stands.

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SKILL, INTEGRITY AND RESPONSIBILITY IN CONSTRUCTION OF BUILDINGS, HIGHWAYS, RAILROADS, AIRPORTS AND PUBLIC WORKS

Have You Adequate Funds?

Could you use \$20,000

> to \$2,000,000

for

- reconverting plants,
- rebuilding inventories,
- developing new products,
- expanding operations,
- buying controlling interest in your own or another company?

Our methods are flexible Our charges fair

> If you are established in business 0.8 Manufacturer. Wholesaler,

or Retailer Phone, write or call

Commercial Corporation

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world, and a philosophy of their duties and responsibilities as directors.

Directors need leadership to become most effective as a board in meeting their responsibility for management. To provide this leadership is the function of the board chairman, whether he is the chief executive or a separate officer. If the chief executive carries the dual responsibility for administration and for critically checking results, or if separate officers lead the board and the executive organization, the position of chairman presents a real challenge in organization and human relations. The chairman can meet the challenge through:

1. Bringing before the board questions where conflicts of interest might occur, such as salary payments, pension plans, determination of dividends, review of independent audit reports, complaints of stockholders, and other problems emphasizing trusteeship.

2. Supervising the selection and election of directors and executives and passing on skills and experience in management.

3. Guiding attention to the policy questions emerging from executives' operating decisions.

4. Proposing sound standards of board procedures.

5. Drawing from directors their maximum contribution by arranging for consultation and by opening appropriate questions for board discussion and action.

6. Preparing agenda that will bring regularly before the board questions and information for appropriate action.

Meeting Changing Trends

Effective boards require adaptation to changes in social and economic trends as well as to changes in their specific companies. They cannot stop with perfunctory discharge of their formal legal responsibilities or with a narrow protective point of view. Careful diagnosis, appraisal, and treatment of each company by those interested in it are far more sound procedures than ingenious remedies prescribed wholesale.

To assume that responsibilities of directors have remained the same as they were two decades ago or that they have decreased, is to ignore history and the economic development of this country. If there ever was any doubt of the im-



Kleenex Tissues rank high among the most popular household items in mil-lions of American homes. And the convenient, attractive Serv-a-Tissue carton is one of the strong reasons why tissue users prefer the Kleenex

The makers of Kleenex tell us, "For many years. Arabol Adhesives have been successfully used in the sealing of our cartons. Rarely, if ever, does a customer have any cause for com-plaint on the performance of the package. Equally rare are any cases of spoilage and rejection. That's mighty important at any time. It's remark able – under today's conditions of round-the-clock operation."

It is Arabol's aim always to supply the one most efficient adhesive for each particular need. Out of our long service to a hundred industries, there are now 10,000 adhesives formulas in the Arabol Laboratories. Your Arabol Representative knows adhesives: see him when he calls.

MANUFACTURING CO.

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ON DOUGLAS DC 3's AND 4's BARS HEAT, NOISE, COLD



(Photos: courtesy Pan American World Airways System)

(Above)—Douglas DC-3. This standard "ship" — a familiar sight at most airports — won much renown at war.

(To left)—The new 4 engine Douglas Skymaster (DC-4) brings London within 16 hours of N. Y.

Thank feather-light "K" Felt for quiet, nerve-soothing clipper ship travel... for insulation that shuts out minus 60° stratosphere cold... for vital instrument protection. Versatile Felt, a first in aircraft comfortization, is used against hatches, in engine nacelles, in cable, pipe, and fuel line bracket clamps, and in the very seats themselves for extra passenger comfort.

Flame and fungi-proofed, "K" Felt has proved itself invaluable on the DC-3, used by most commercial airlines, and the military "workhorse" that dropped men, equipment and supplies in Normandy, Holland and Pacific theatres. Felt will function just as efficiently in the new Douglas Skymaster on the 16 hour N. Y.-London run.

Perhaps you have a sound or heat control problem "K" Felt can solve. An American Felt representative will be happy to call. Or, if you prefer, write on your letterhead for a "K" Felt sample and technical Data Sheet No. 3, "'K' Felt, Sound Absorption and Thermal Insulation."

* Kapok Felt — assurance of continued performance. Normal moisture content 4%. There is no "collapse" or "disintegration" under severe temperature changes or from vibration.



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In developing new products or new improvements in your line, you may have need for competent "outside" counsel on chemical and manufacturing problems.

Edwal offers advisory service that is based not only on technical knowledge, but also on successful commercial experience in the manufacture and marketing of chemicals (through a subsidiary manufacturing company). Thus, Edwal chemists "keep their feet on the ground" when they study new problems and make recommendations. Even though you may not need it immediately, find out more about this practical advisory service now! Write for details!

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The Graphic Arts Association

portance of directors or the latent possibilities of their contributions to corporate and social welfare, it should have been dispelled by events occurring during the last decade. Directors are one of the important keys to the solution of the present-day social and economic problems, and it is no exaggeration to state that national welfare, even political security and liberty, may well depend on some of their decisions concerning such matters as products, expansion, and employment.

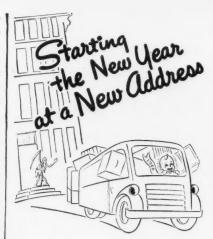
Society is in a revolutionary frame of mind. Professor Whitehead ably expressed this by writing "Mankind is now in one of its rare moods of shifting its outlook." This revolutionary spirit affects not only business but also all fields of human activity, including religion, education, and political theory. Society is reviewing every practice, every social institution, and people generally demand something new. Directors appear to be at the crossroads; they need to know their duties and meet them adequately, or drastic changes may well occur which would completely revolutionize the character of the control and supervision of American business and industry.

ANALYSIS

(Continued from page 26)

the left-hand vertical column and in the top row.

Each figure (excluding the sum totals) represents a charge from one industrial account to another industrial account. The \$479,000,000 entered, for example in the intersection of row three and column four represents \$479,000,000 worth of ferrous metals absorbed by the motor vehicle and the industrial and heating equipment industries. The name of the producing -i.e., the selling-industry is shown at the left-hand side of each row. The consuming—i.e., the buying—industry can be identified by the name entered at the top of the corresponding column. The sequence of the titles from left to right at the top of the table is identical with the corresponding sequence from top to bottom on the left-hand side.



Thanks to our clients' confidence in us... in our ability to plan and produce sales campaigns that "hit the mark"... D. H. Ahrend has grown steadily, expanding its services and facilities as clients' demands have increased.

The old quarters at 52 Duane Street grew so tight, we **had** to find new ones that would fit and give us more room to grow along with our clients.

So here we are — at 325 to 333 East 44th Street — right in the heart of things—with enough space to keep on extending facilities for a Complete Advertising Service that meets all requirements of old friends as well as new ones.

Let a qualified Ahrend Executive discuss your sales promotion problem. No obligation in the New York Metropolitan area; no charge for consultation anywhere when our proposals are accepted. Call MUrray Hill 4-3411 or write TODAY.

Ahrend Clients Have Won Sixteen National Awards Within the Past Three Years.

D. H. AHREND CO.

Advertising

DIRECT MAIL DIVISION 325 to 333 E. 44th St. New York 17, N. Y. MUrray Hill 4-3411



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"I see you are reading the Chase Book. That book was a big help in giving my company basic information on the whole subject.

"We also conferred with the Chase Pension Trust Officers about our particular problems, and as a result we have adopted a plan that is specifically designed to fit our situation."

Corporation officials are invited to confer with Chase officers who give their attention exclusively to this subject. And, when a plan has been formulated, the appointment of the Chase as corporate trustee will bring to the administration of the trust, expert, permanent, impartial and economical service.

Our 92-page summary entitled "Pension, Bonus and Profit-Sharing Plans," covering the fundamentals of formulating and financing employee benefit plans is available. We invite you or your consultant to ask for this study and to discuss your particular case with us—without obligation.

THE CHASE NATIONAL BANK

OF THE CITY OF NEW YORK

Pension Trust Division

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NEW YORK 15



The Management Engineer lifts the lid, peers into the many phases of plant operations. To his vital work, he brings professional perspective, broad basic background in all business fields and industry, a competent staff of specialists ...utilizes laboratory analysis, personnel psychology, job and work evaluation ... intelligently integrates many complex factors, often supplies the catalytic agent which make profits jell.

Practical but not psychic, the engineer is guided by inspection, investigation, appraisal...takes apart departmental functions...sees, studies, solves.

First requisite of the business doctor

is a report of all relevant facts—current and comparative... in a form for quick assimilation, comprehensive enough to aid overall judgment. With the facts beforehim, his complex diagnosis can be accurately made; the corporate patient headed towards recovery.

McBee is not a firm of management engineers. Butour methods and products based on forty years of experience, aid analysis, facilitate interpretation, speed systematic study . . . make the doctor's final findings available faster, because McBee makes all the important business facts available faster!

We have seen that any single entry in a row represents the sales of one industry to another. It follows that it also represents the purchases by the second industry from the first. Accordingly, just as each single row describes the distribution of the sales of one industry to all others, so each column describes the purchases of one industry from all the others. For example, reading the entries in the third column, ferrous metals, we see that in order to produce the \$3,887,000,000 worth of its gross output, the ferrous metals industry absorbed \$37,000,000 worth of fabricated metals, \$109,000,000 worth of non-ferrous metals and their products, \$318,000,000 worth of fuel and power, and so on.

Further down, the transportation cost (mostly railroad freight charges) on ferrous metals is shown as amounting to \$266,000,000. The income earned—that is, the combined profit, interest, and wage bill derived by the owners, investors, and workers connected with this industry—amounted to \$886,000,000. This figure is entered near the bottom of column three in row 20.

The entries in the other columns show in the same way the cost structures of all the other branches of the national economy.

The figures in the second to the last column, entitled households, show how the \$71,699,000,000 spent in the year 1939 by American consumers were apportioned among the purchases of all the different commodities and services.

For more detailed description the twenty-one industries have to be broken down into smaller sub-divisions; the number of rows and columns in the table would in this case be increased accordingly. But on the other hand the picture can be simplified through combination, *i.e.*, consolidation of two or more industries into one single account.

Double Entry Bookkeeping

I use the term "account" in the precise bookkeeping sense. As you already may have observed, each separate row of figures in this chart represents the credit side, and the corresponding column the debit side of a separate industrial account. The fact that each figure in this table occupies a place in one particular row and in one particu-

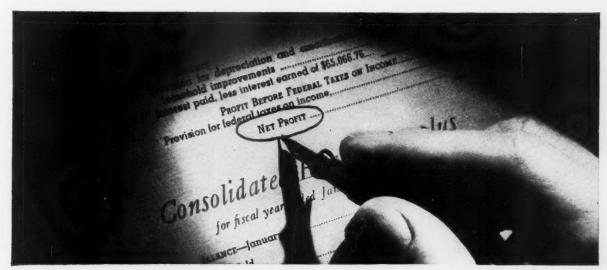


THE MCBEE COMPANY

SOLE MANUFACTURERS OF KEYSORT

295 Madison Ave., New York 17, N. Y . . . Offices in principal cities

what are profits ...



made of?

PROFITS are made of many things. Sound selling policy is one. Efficiency of manufacturing is another. Service to customers is important, too.

One of the most important of the many things which profits are made of is the factor which many businessmen often overlook. That is the efficiency of bookkeeping methods.

A smoothly functioning accounting department and satisfactory profits go hand-in-hand. That's why it pays to have a thorough check made of your methods of handling money and records. In this way you can be sure of full operational efficiency and lowest possible overhead.

Whatever the size or nature of your business . . . from a small dry goods store to a large steel plant . . . there is a

National system that can save you time and money in all your business accounting. This includes payroll, accounts receivable, and distribution of sales and costs.

Get the facts . . . No obligation

Upon request, a National representative will be glad to discuss your system of handling money and keeping records.

Following this discussion he will make definite recommendations. Have your own accounting department compare the National system with the one you are now using. Make the decision solely on the facts revealed. The National Cash Register Company, Dayton 9, Ohio. Offices in principal cities.





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IBM ANNOUNCES

the 1946 Electromatic Typewriter, which produces letters of distinguished appearance, with a minimum of physical effort on the part of the operator.

It is now on display in IBM offices in all principal cities throughout the country. We will be glad to furnish you with full information upon request.

INTERNATIONAL BUSINESS MACHINES CORPORATION

World Headquarters Building, New York 22, N. Y.

TYPEWRITER



You're alone in your office. Your secretary is out to lunch. A big idea comes to you. If only you could get it down on paper right away!

Don't lose it! Act on it while it's hot in your mind. Tell it to the "mike" right now—and let your secretary take care of transcribing it later.

One good idea saved and sped into action through being recorded promptly by the Edison Electronic VOICEWRITER could pay for a VOICEWRITER installation. And you'd be amazed at the many unsuspected ways VOICEWRITING streamlines your work, saves hours for you and your secretary. Let us tell you about them — just tear out and mail the coupon today.

VOICEWRITER Ediphone

	WRITER and how it can save time and streamline business operation.
Name	
Company	

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lar column reflects the fundamental principle of double entry bookkeeping. Each transaction has to be entered on the debit side of one account and on the credit side of another.

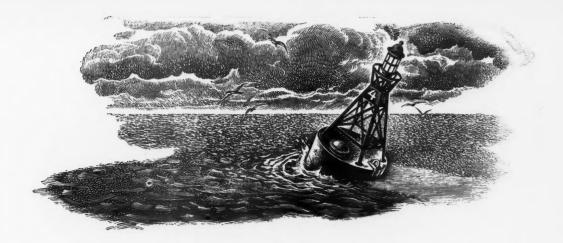
The statistical information contained in a separate row and the corresponding column of the table even taken by itself can be of considerable interest to a market analyst since it shows the distribution of the products of the particular industry among the different types of consumers and its dependence upon various sources of supplies. The peculiar advantage of having the information pertaining to all the industries combined in one integrated table lies in the fact that it indicates a simple and logical way of combining consideration of factors immediately impinging on the condition of a separate industry with the more general analysis which stresses the remote, but not less important, influences of the state of the economy as a whole.

Construction Demands

The practical usefulness of the latter type of approach has up to now been severely limited by the lack of any systematic procedure enabling us to trace through the indirect effects of expected changes in one sector of the national economy upon the conditions prevailing in some other sector, for example, the effect of increased volume of construction upon the demand for the products of the ferrous metals that is the basic iron and steel industry.

This table also shows that with its total output amounting in 1939 to 10,089 million dollars the construction industry purchased in that year 592 million dollars' worth of the products of the ferrous metals industry, which means that 5.9 cents of the average construction dollar were spent directly on ferrous metals. In absorbing other products such as fabricated metals, chemicals, etc., the construction industry generated additional, secondary demands for iron and steel, since these latter industries-ferrous metals users of their own right-purchased 10 cents or 0.01 cents worth of iron and steel respectively for every dollar of their finished

A rather simple computational procedure makes it possible to estimate on the basis of the factual information con-



Will you swim or drift with the Reconversion Tide?

Periods of great prosperity followed the Civil War, the Spanish American War and World War I. It is obvious that a great tide of growth and expansion is occurring now. The question is: Will you swim or drift with that tide?

The answer is up to you. During these years, rich rewards await those who are resolved to forge ahead in business or industry. There will be exceptional opportunities for ambitious men. *Qualified* men will be in great demand. Right NOW, in fact, there are more high-salaried positions available than there are men capable of filling them!

But you cannot hope to fill such an executive position until you have a working knowledge of the fundamentals underlying all business and industry. It is not enough to be an expert in one. The executive who supervises other men, who guides a business on its course, must have broad knowledge. He must have mastered the principles of Accounting, Production, Finance and Marketing in all their phases.

During the past 36 years, thousands of ambitious men have obtained this essential training through the Alexander Hamilton Institute's Modern Business Course and Service. The program, designed by practical business men, is basic, thorough and scientific. Among the prominent contributors to this course are such men as: Thomas J. Watson, President, International Business Machines Corp.; Herman W. Steinkraus, President, Bridgeport Brass Co., and Clifton Slusser, Vice President, Goodyear Tire & Rubber Co.

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Please mail me, without cost, a copy of the 64-page book—"FORGING AHEAD I BUSINESS."
Name
Firm Name
Business Address
Position
Home Address

Condensed Statement of Condition December 31, 1945 RESOURCES

Cash in Vault and in
Federal Reserve Bank 675,747,941.26
Due from Banks
TOTAL CASH \$1,004,594,166.57
United States Government Obligations, direct and
fully guaranteed 3,135,746,035.32
State, County, and Municipal Bonds 276,912,248.16
Other Bonds and Securities
Stock in Federal Reserve Bank 6,092,600.00
Loans and Discounts 1,018,741,455.87
Accrued Interest and Accounts Receivable 17,248,685,19
Bank Premises, Furniture, Fixtures, and Safe
Deposit Vaults
Other Real Estate Owned
Customers' Liability on Account of Letters of Credit,
Acceptances, and Endorsed Bills 26,324,950.15
Other Resources
TOTAL RESOURCES SE 626 063 927 06

LIABILITIES

Common	3	(8,	000	,00	0 S	ha	res)	.\$	100,000,000.00
Preferre	d	(404	.27	8 5	ha	res	*(;		8,085,560.00
Surplus										96,500,000.00
Undivided		Pro	fits							20,655,495.46
Reserves										4,191.446.63
Preferred	S	tock	c H	eti	rer	ner	at 1	Fur	nd	162,053.65

TOTAL	. C.	APIT!	IL	FU	ND	S								S	229,594,555.74
Reserve	for	Bad	De	bis											18,106,619.15
	De	mand					\$	3,3	04	532	2,36	69.	14	1	

Deposits
Savings and Time . 2.034.774.729.30

Liability for Letters of Credit and as Acceptor,

*Issued at \$50 (\$20 Capital—\$30 Surplus), Annual Dividend \$2. Preferred to extent of and retirable at issue price and accrued dividends.
This statement includes the figures of the London. England, banking office.

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Canital.

Meet the people of California—the millions of men, women, and children whose patronage has built Bank of America. In the 493 branches of this bank they save their dimes and their dollars; from this bank they borrow money. For this bank was founded upon the sound

belief that satisfied customers represent the most valuable asset of any business. You are invited to write to Bank of America for a copy of the graphic economic study, "The California Trend." Address: 300 Montgomery Street, San Francisco 20, or 660 South Spring Street, Los Angeles 54.

Bank of America

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California's Statewide Bank... Main offices in the two reserve cities of California San Francisco and Los Angeles

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION
MEMBER FEDERAL RESERVE SYSTEM

indirect effects of any given change in the volume of construction upon the demand for ferrous metals. In 1939 each additional dollar's worth of construction would have increased the total demand for iron and steel by 8.5 cents of which 5.9 cents represented direct requirements and the remaining 2.6 cents the combined indirect demand effected through all the other industries. Of the total dollar output of the ferrous metals industry 592 million dollars were absorbed by construction directly and 250 million dollars worth—although sold to other industries-indirectly also depended upon construction demand.

tained in this table all the direct and

Importance of Foreign Trade

The dependence of domestic economic activities upon foreign trade offers another example of a problem which involves a study of indirect relationships. To arrive at a general measure of the significance of foreign trade for the home economy one might ask for instance what effect a complete cessation of all exports would have on the output of domestic industries. Computations similar to those described above show that around three million domestic jobs depended upon the 3.3 billion dollars of our total 1939 exports; 630 thousands of these workers were employed in immediate production for exports, the rest depended upon the export trade indirectly: Approximately 400 thousands were engaged in production, transportation, and distribution of materials and tools directly and indirectly absorbed in manufacture of the exported commodities, while nearly two more million workers were required to satisfy additional domestic consumers' demand resulting from the total export-dependent employment.

Turning from these over-all figures to the separate industrial components we find the export dependence of the non-ferrous metals and their products industry to be the highest—23 per cent of its 1939 volume dependent upon exports; next come the fuel and power, the ferrous metals and the chemical industries with 16.3, 16.1 and 15.9 per cent dependence respectively. The non-metallic minerals and their products with 7.9 per cent of export dependence prove to be the most autarchic one. The table on page 26 shows the

THE NATIONAL CITY BANK

OF NEW YORK

Head Office · 55 WALL STREET · New York



Condensed Statement of Condition as of December 31, 1945
Including Domestic and Foreign Branches

(In Dollars Only-Cents Omitted)

ASSETS

Cash and Due from Banks and Bankers United States Government Obligations (Direct	\$1,102,106,681
or Fully Guaranteed)	2,773,488,249
Obligations of Other Federal Agencies	34,671,455
State and Municipal Securities	145,808,546
Other Securities	79,784,670
Loans, Discounts, and Bankers' Acceptances	1,233,843,937
Real Estate Loans and Securities	5,879,312
Customers' Liability for Acceptances	5,450,115
Stock in Federal Reserve Bank	6,600,000
Ownership of International Banking Corpora-	
tion	7,000,000
Bank Premises	30,031,968
Items in Transit with Branches	7,422,875
Other Assets	2,284,792
Total	\$5,434,372,600
LIABILITIES	
Deposits	\$5,143,422,244
(Includes United States War	ψ, 422,244
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills \$13,391,236 Less: Own Acceptances in Port-	
Liability on Acceptances and Bills. \$13,391,236	7,733.065
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills \$13,391,236 Less: Own Acceptances in Port-	7,733.065
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills. \$13,391,236 Less: Own Acceptances in Portfolio	7,733.065
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills. \$13,391,236 Less: Own Acceptances in Portfolio	
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills . \$13,391,236 Less: Own Acceptances in Portfolio	1,972,546
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills . \$13,391,236 Less: Own Acceptances in Portfolio	1,972,546 27,300,507
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills. \$13,391,236 Less: Own Acceptances in Portfolio. 5,658,171 Reserves for: Unearned Discount and Other Unearned Income. Interest, Taxes, Other Accrued Expenses, etc. Dividend.	1,972,546
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills. \$13,391,236 Less: Own Acceptances in Portfolio. 5,658,171 Reserves for: Unearned Discount and Other Unearned Income. Interest, Taxes, Other Accrued Expenses, etc. Dividend. \$77,500,000	1,972,546 27,300,507
Loan Deposit \$1,133,752,278) Liability on Acceptances and Bills. \$13,391,236 Less: Own Acceptances in Portfolio. 5,658,171 Reserves for: Unearned Discount and Other Unearned Income. Interest, Taxes, Other Accrued Expenses, etc. Dividend.	1,972,546 27,300,507

Figures of Foreign Branches are included as of December 22, 1945, except those of Branches in the Far East possession of which we have not recovered. For these latter the figures are prior to enemy occupation but less reserves.

Total......\$5,434,372,600

\$1,328,365,691 of United States Government Obligations and \$7,973,361 of other assets are deposited to secure \$1,242,344,155 of Public and Trust Deposits and for other purposes required or permitted by law.

(Member Federal Deposit Insurance Corporation)

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W. RANDOLPH BURGESS Vice-Chairman of the Board

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SOSTHENES BEHN
President, International Telephone and Telegraph Corporation

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GERARD SWOPE Honorary President, General Electric Company

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ROBERT WINTHROP Robert Winthrop & Co.



Hidden, but no longer beyond scientific penetration, are the restless atoms. Split them, and you get ATOMIC POWER capable of destroying entire cities.

Experts claim there is as yet no defense for civilization against the danger from the military use of atomic power. There is however an impregnable defense against financial loss, and that is INSURANCE.

Our Personal Property Floater Policy protects against financial loss resulting from losses (war risks excepted) of personal property owned, used or worn by you and members of your family in the same household. It affords world-wide protection. We modestly claim it to be one of the best personal insurance values ever developed.

Your LOSS-POTENTIAL, like the restless atom, surrounds your every activity!

A'phone call to our agent or your broker will bring full information and costs.

SURETY FIRE INSURANCE COMPANY
Affiliated with

AMERICAN SURETY COMPANY
NEW YORK CASUALTY COMPANY

100 BROADWAY, NEW YORK 5

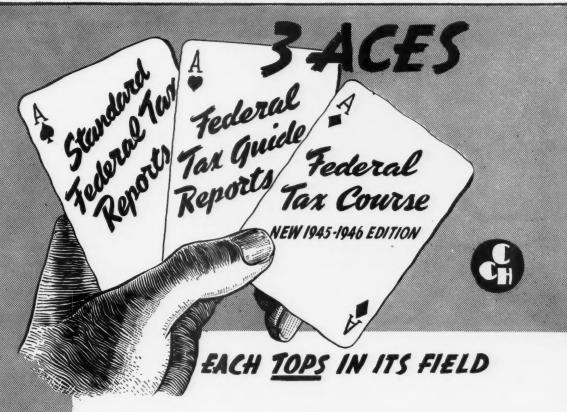
degree of export dependence of the 16 principal divisions of American economy in the year 1939.

No other issue illustrates so clearly the discrepancy between economic common sense and our ability to implement general reasoning by factual analysis, as the question of price changes. The very crux of the problem lies in the interrelation of different parts of the system. For example, the indirect relationship between the price of steel and the price of wheat, the connection between the price of labor i.e., the wage rates in the textile industry and the price of automobiles. Here again a simple examination of interrelated cost structures of various industries as summarized in the table showing the allocation of goods and services by industry of origin and destination opens up a promising avenue of approach to the solution of our problem.

Affects of Price Changes

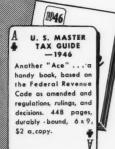
How would a 10 per cent raise in the prices of ferrous metals affect other parts of the national price structure? The first effect of such price increase would be a 10 per cent addition to that particular cost item of all the ferrous metals buyers. All the dollar figures entered in row 3 of our table would have to be increased by 10 per cent. Depending upon the relative importance of ferrous metals in their cost structure this increase will affect different industries in a varying degree. In every case the additional outlay will either have to be absorbed through an opposite wage or profit adjustment or it will have to be passed forward through a compensating increase in the price of the finished product. The magnitude of these secondary price adjustments can be easily determined from the figures contained in the corresponding rows and columns of the table. Tertiary price increases can be derived from the secondary one and

The use of specially designed computational technique eliminates the necessity of such a step by step procedure and leads directly to a final answer. The table on page 26 shows the total effects which a 10 per cent increase in the price of ferrous metals would have on the prices of the products of the other 18 industrial groups represented in the



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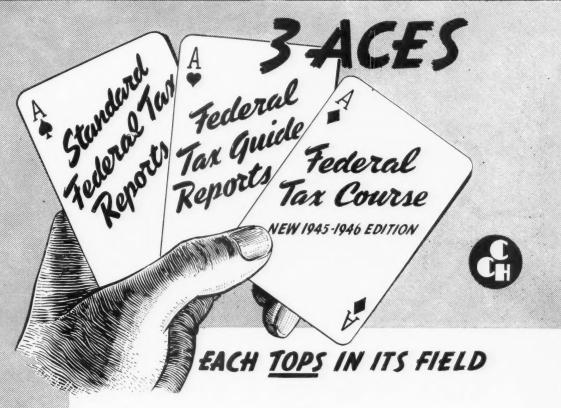
degree of export dependence of the 16 principal divisions of American economy in the year 1939.

No other issue illustrates so clearly the discrepancy between economic common sense and our ability to implement general reasoning by factual analysis, as the question of price changes. The very crux of the problem lies in the interrelation of different parts of the system. For example, the indirect relationship between the price of steel and the price of wheat, the connection between the price of labor i.e., the wage rates in the textile industry and the price of automobiles. Here again a simple examination of interrelated cost structures of various industries as summarized in the table showing the allocation of goods and services by industry of origin and destination opens up a promising avenue of approach to the solution of our problem.

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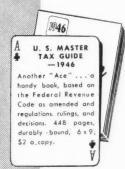
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BANKERS TRUST COMPANY

NEW YORK



CONDENSED STATEMENT OF CONDITION, DECEMBER 31, 1945

ASSETS

Cash and Due from Banks	\$ 378,425,210.74
U. S. Government Securities	894,686,409.15
Loans and Bills Discounted	568,440,375.09
State and Municipal Securities	14,435,886.11
Other Securities and Investments .	44,467,867.21
Real Estate Mortgages	59,258.50
Banking Premises	15,230,350,64
Accrued Interest and Accounts Receivable	5,163,632.66
Customers' Liability on Acceptances	1,036,622.97
	\$1,921,945,613.07

LIABILITIES

Capital . . . \$30,000,000.00

Surplus 80,000,000.00	
Undivided Profits 33,317,049.61	\$143,317,049.61
General Reserve	15,403,262.71
Dividend Payable January 2, 1946	1,050,000.00
Deposits	1,749,590,468.60
Reserve for Taxes, Accrued Expenses, etc	8,321,798.28
Acceptances	
Outstanding \$ 2,332,749.71	
Less Amount	
in Portfolio1,154,134.78	1,178,614.93
Other Liabilities	3,084,418.94
	\$1,921,945,613.07

Securities in the above statement are carried in accordance with the method described in the annual report to stockholders, dated January 11, 1945. Assets carried at \$424,516,297.89 have been deposited to secure deposits, including \$399,015,290.68 of United States Government deposits, and for other purposes.

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table dealing with the allocation of goods and services. These are computed on the assumption that none of these has absorbed any of the resulting cost increases. A different assumption in this respect would give a different pattern of price adjustments.

From particular prices one can proceed to the general price level. The second from the last vertical column in the table dealing with allocation of goods and services shows the distribution of the total 1939 consumers' expenditure by products of various industrial origin. Applying the separate price indices listed in the table on the effects of a ferrous metal price increase to the corresponding item of the consumers' budget we find that a 10 per cent increase in the price of ferrous metals would have raised the average costs of living by 0.49 per cent.

The discussion of the three different examples of economic problems, the solution of which can be advanced through systematic factual study of inter-industrial relationships was of necessity brief and sketchy. Designed to demonstrate the application of a new procedure it was also one-sided. No question of practical business analysis can be answered through the use of a magic formula however ingenious. A real advance in this difficult field can be achieved only through combination of different methods and various techniques. This does not mean however that some avenues of approach do not deserve special attention. At present the long neglected study of industrial relationships appears to be particularly rich in promise.

NORTHWARD HO

(Continued from page 21)

often sold to the exclusion of other commodities. The general store prevailed, however, as wants were simple and luxuries few and the home was a place where many items were manufactured.

About 1840 the retail merchant began to make more or less separate distinctions in the goods sold. The tailor, hatter, shoemaker, gradually introduced ready made goods. For instance, J. C.

Booth, a tailor, added the descriptive line to his name "Gentlemen's General Furnishing Store." In 1840, at 27 Cortlandt Street, he advertised "A large assortment of Ready Made Goods. Gentlemen arriving in the city, requiring an immediate outfit, will find at this establishment, at all times, a large assortment of new and fashionable goods, selected by our agents in London and Paris. NO deviation in prices."

Henry B. Fearon, an English visitor who wrote an American travelogue in 1818, said "There are ready-made clothes' shops, as in London, at which articles of a cheaper and inferior description are sold." He adds that tailor shops received moderate credit but "long credit was given." The demand of sailors for quick service may have stimulated the need for ready made clothing. The first systematic attempt to make up clothing for immediate use was made about 1830. The demand was later accelerated by the requirements of emigrants to the newly discovered gold fields of California, and the dealers began to operate small factories on their premises. The demand for ready made clothing grew fastest in the West and South, principally because of the lack of local facilities for manufacture.

Clothing Manufacture

George Opdyke, once mayor of New York, was one of the earliest to engage in this business. About 1831 he commenced to manufacture clothing in Hudson Street, opening a store for its sale in New Orleans. About three years later his brother-in-law, John D. Scott, took charge of the business of the factory, the firm name being changed to John D. Scott & Company.

Thomas Chatterton began as a dealer about 1840 in New Haven, and in 1846 he first handled ready-made clothing and entered the field as a manufacturer. In 1856 he came to New York, where his store was located at 60 Liberty Street. As Lew, Chatterton & Company, he moved later to Warren Street. John Browning, founder of Browning King & Company, commenced business in New York as a dry goods jobber in 1832. In 1848 he started a branch store in California, making his first shipments mostly of dry goods, but soon changed it into a clothing store and forwarded large amounts of cheap



S-T-R-E-T-C-H-I-N-G A BOXCAR

In the Early Staces of the War, a serious shortage of shipping space threatened supply lines to Europe and the Pacific. Aiding in the urgent search for a solution to the problem, The Cambridge Tile Manufacturing Company, Cincinnati, successfully completed an experiment in compressing three carloads of dried whole egg powder and loading them into a single boxcar.

Presses that had been used to compress clay into Suntile were quickly converted into food-compression equipment through the use of new dies designed and built in Cambridge Tile's own shops. Facilities were rapidly expanded to meet the ever increasing demand of the Armed Service Forces for compressed emergency rations. But the conversion created handling problems that throttled production and prevented full utilization of the extra shipping space made available by the new food compression method.

So Towmotor engineers were called in to install a modern materials handling system. 100-pound bags of dried food powders were loaded on pallets in the receiving room and fed to the production line in a continuous, controlled stream. The finished cakes of compressed food were packed into shipping cartons,

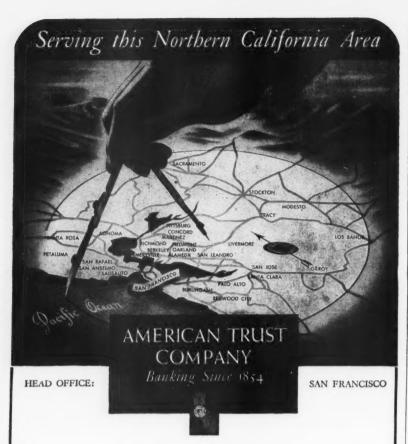
assembled into large unit loads, and moved directly into the boxcars by one girl and a Towmotor. Work schedules were accurately timed to provide maximum output per man and machine. Closer inventory control eliminated delays and tie-ups. Production speed was increased to machine capacity, freed from the limitations imposed by slow handling methods. Most important, Towmotor made possible immediate and full utilization of every foot of shipping space.

The results achieved at Cambridge Tile are typical of Townotor installations throughout industry. The know-how and experience that contributed numerous opportunities to increase productive output also enabled Cambridge Tile to effect savings of \$1,000 a month in handling costs alone. The Townotor Materials Handling Analysis Guide, a product of know-how and experience, will greatly simplify your handling problem; send for a copy today. Townotor Corporation, 1227 East 152nd Street, Cleveland 10, Ohio.

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Statement of Condition

DECEMBER 31, 1945

RESOURCES

Cash on Hand and in Banks									\$175,251,807.56
U. S. Government Obligations									549,589,356.05
Obligations of Other Federal A									16,246,607.75
State, County and Municipal Bo									22,451,860.41
Other Bonds and Securities									5,603,077.34
Stock in Federal Reserve Bank									690,000,00
Loans and Discounts									209,011,972.19
Bank Premises and Equipment									5,543,543.22
Other Real Estate									9.00
Customers' Liability under Letter	rs of	Cr	cdit	an	d A	ccer	otan	ces	3,310,700.11
Accrued Interest Receivable and									4,952,883.40
	TO	TA	LF	RES	OU	RCI	ES		\$992,651,817.03

TOTAL RESOURCES	\$772,071,017.03
LIABILITIES	
Deposits	\$953,388,395.09
Letters of Credit and Acceptances	3,319,038.01
Reserve for Interest, Taxes, Etc.	3,875,044.41
Other Liabilities	2,469,473.00
Capital Stock	.,,
Preferred \$7,453,100.00	
149,062 shares four per cent convertible stock, \$50.00 par value.	
Common	14,970,154.54
375,852 8/11 shares, \$20.00 par value.	
Surplus	10,029,845.46
Undivided Profits	
TOTAL LIABILITIES	

U. S. Government and other securities carried at \$172,022,584.41 are pledged to secure U. S. Government War Loan Deposits of \$123,356,954.03 and other public funds and trust deposits, and for other purposes as required or permitted by law.

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clothing, mostly gray flannel shirts and trousers for the use of the miners. This firm also undertook the manufacture of army clothing during the Civil War.

The introduction of the sewing-machine about 1850 had a tremendous influence on clothing manufacture. Previously it had been necessary to do all needle work by hand and great quantities of clothes were sent to the country towns round about New York to be sewed by the wives and daughters of farmers and sailors through the Winter. The manufacture of clothing for boys began about 1845. It is probable that Smith & Davidson were the first to devote themselves to this business.

The furnishings goods trade was begun about 1822 by Luke Davies. This started with the demand for custom shirts; and as the business of manufacturing shirts increased, other lines were added, as for example, the making of "stocks," suspenders, and jean underwear. In 1832 the shirt trade of America was founded as a systematic industry by David & Isaac N. Judson, prosperous clothing merchants on William Street.

The Country Merchant

The successful grocer often enlarged his business until he required a warehouse for storage, and soon found himself supplying other grocers, especially the country merchant. These grocers carried the legend on their advertisements "wholesale and retail," and some of them eventually dropped the word retail.

The country merchant is a term forgotten in modern distribution, but he was an important part of the daily trade in Manhattan. Early in the nineteenth century, the country merchant paid an annual or even biennial visit to his sources of supply. He came from upper New York State, New Jersey, western Pennsylvania, and even Ohio. In the days before the railroads and canals, he carried his own purchases, by wagon or pack horse, and wherever possible used the packet service up the Hudson, or along the coast. The profits made on country business were large, but the risks were equally great. Terms, prior to the panic of 1837, were as long as 18 months, and the New York merchant carried a heavy load of receivables subject to loss by failure of the



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SYDNEY G. DOBSON Executive Vice-President

W. F. ANGUS Vice-President BURNHAM L. MITCHELL Vice-President

JAMES MUIR General Manager

Condensed Annual Statement

as on November 30, 1945

ASSETS

Cash on Hand, in Banks and in Bank of Canada	\$ 418,190,213.09
Government, Provincial and Municipal Securities not exceeding	
market value	1,001,072,550.27
Other Bonds, Debentures and Stocks not exceeding market value	32,767,405.11
Call Loans	106,446,918.06
Commercial Loans	382,010,057.74
Bank Premises	10,848,254.92
Liabilities of Customers under Letters of Credit and other Assets	56,211,579.67

\$2,007,546,978.86

LIABILITIES

Capital, Reserve and Undivided Profits	\$ 60,819,179.30
Notes of the Bank in Circulation	7,007,429.94
Deposits	,888,757,074.14
Letters of Credit and Other Liabilities	50,963,295.48

\$2,007,546,978.86

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NAME______ TITLE_____

COMPANY

[58]

trader, and by depreciation of paper money. Many of the merchants who went under in 1837 as a direct or indirect result of the panic following President Jackson's "specie circular" saw profits and principal disappear with country merchants whose paper money in defunct State banks wasn't worth a penny cash in New York. Despite the vicissitudes of trade away from the coast, "the country trade" was an important channel of distribution. The trader's lot gradually bettered with improved mails, transport, and credit reporting which enabled him to make fewer trips and order from catalogs and samples.

Paper money remained a problem until after the Civil War. Until that time, papers published daily discount rates on bank papers. Merchants didn't know whether they were selling at a profit or a loss as the discounts of the Southern and Western banks fluctuated at an amazing disparity with par. Eventually, the merchant made the bills payable at par in New York, and left the mathematics of discounts to the customer. The country lacked specie which was constantly drained away in an unfavorable trade balance with Europe and especially England, a defect which was slowly remedied after the discovery of rare metals in the Western States and a general improvement in home manufactures.

The country merchants are described in rare rhetoric by Sherman P. Church in his confidential credit reports which were based on his trips to the South and West around 1838 to 1840. Lewis Tappan organized his Mercantile Agency originally to put order into chaos in the relationship between the country trader and his city sources of supply. Bradstreet gave his early attention, however, to the city jobber. This distinction didn't last more than a few years.

Northward Expansion

Meanwhile, the city grew rapidly to the north. Business on Broadway crept up toward Greenwich Village, and by 1825 New York linked up with the little village. In 1828 main streets were given regular illumination—Broadway, South Street, Pearl, and Wall. Broadway was the center of retailing from the Battery to 10th Street, a distance of two miles. Pearl Street was the headquarters of the wholesale dry goods merchants. Transportation for the shoppers was provided by stages and hackney coaches. When the horse cars were introduced in 1831, the Harlem Railroad dispatched horse cars every 20 minutes from the Bowery at Prince Street to Harlem, a distance of seven miles.

Stages ran at short intervals, along regular routes, from Wall Street and the lower parts of the City to the Dry Dock, Greenwich, and 14th Street. Others ran several times a day from the Bowery and Bayard Street, to Yorkville, Bloomingdale, Harlem, and Manhattanville. In 1838 there were over 120 vehicles in use on all the lines that ran to and from Wall Street. The fare through the city was 12½ cents; to Yorkville, 18¾ cents; to Harlem and Manhattanville, 25 cents.

Manhattan Villages

By 1845 the population of New York had passed 370,000. Fourteenth Street was now the northern limits of the business world, and residences were under construction as far as 23rd Street. A few venturesome people were building homes as far north as Murray Hill. The upper part of Manhattan Island was still composed of scattered homesteads and villages, the boundaries of which latter it is impossible to define exactly. Chelsea lay between 8th Avenue and the Hudson from about 19th to 24th Streets. North of Chelsea was the village of Bloomingdale, a name often applied to the riverfront as far north as Manhattanville, which centered around 129th Street. This area was chiefly occupied by scattered country-seats.

The section which lay between 59th and 87th Streets, extending from Central Park to the Hudson, was long known locally as Harsenville. Harlem, which occupied the entire north end of the island above a broken line running from 74th Street and the East River to 130th Street and the North River, was described at this time as a flourishing village, with a population of 1,500 people. South of Harlem was Yorkville along the East River.

Between the panics of 1837 and 1857, the city pushed north like mercury in a July thermometer. Improved transpor-





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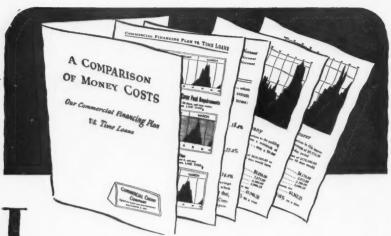


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The success of the Harlem car line led to the building of others. In 1860 the Harlem Railroad had 35 cars in operation between the Astor House and Harlem River; the Sixth Avenue Railroad, which dated from 1851 had 43 in service between Barclay Street and Central Park. The Second Avenue Railroad, which received its grant from the Common Council in 1852, had 30 cars operating from Broadway and Park Row to the Harlem River. Besides the railroads, 16 omnibus companies were operating 544 licensed stages, which ran over fixed routes to all parts of the city below 50th Street, as well as to the neighboring villages. On these the usual fare was 6 cents.

A. T. Stewart's Store

A. T. Stewart was the first of "big" store operators. He is also credited with other "firsts," of being the first "one price" house. This claim is subject to debate as a number of leading merchants of the period proclaimed a one-price policy, among them being Arthur Tappan, the silk merchant, and Lord & Taylor on Catherine Street which advertised "no deviation from first prices." Stewart was a friend of Tappan, and the silk merchant's brother Lewis probably made the first operating analysis of a "big business" when he accepted Stewart's assignment to study the Stewart financial structure and determine the soundness of the business. During the 40's Stewart employed between 200 and 300 clerks in his wholesale and retail business at Chambers Street. He probably had 2,000 clerks at his palatial store at Broadway and 9th Street during the 1860's. Daily sales averaged around \$60,000 during this period. A breakdown of the principal receipts is reported in Great Fortunes by James D. McCabe, Jr., as follows:

Silks	\$15,000	Velvets	\$2,000
Dress Goods	6,000	Gloves	1,000
Muslins	3,000	Furs	1,000
Laces	2,000	Hosiery	600
Shawls	2,500	Boys' Clothing	700
Suits	1,000	Notions	600
Calicoes	1,500	Embroideries	1,000
	Carpets	5,500	

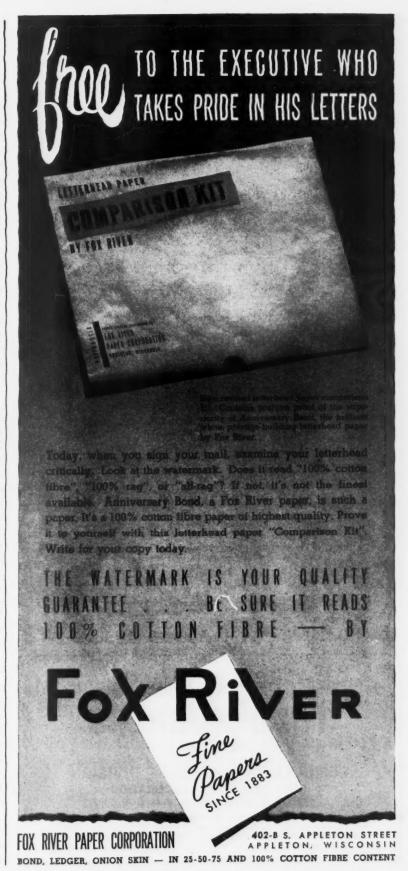
The first gesture toward Manhattan's vertical growth began in 1850 with the introduction of the elevator or lift by Hecker & Brother, millers. A steam elevator was used in the bathing observatory at the World's Fair of 1853, and the first permanently installed elevator for passenger service was installed in the Fifth Avenue Hotel opposite Madison Square in 1859. Commercial houses had reached six stories, and that dizzy height offered a serious problem to the fire department which protested and asked for a building ordinance limiting the height of structures. The coming of the elevator would relieve the strain on the heart and legs but the weak-lunged pumping equipment of the fire department was still a problem until after the Civil War.

Marble Fronts Appear

In the early 30's, Broadway attempted to doll up a bit with marble columns and fronts. The public approval of the sturdy marble fronts of the Astor House, and Holt's Hotel invited imitation. Brick fronts were replaced by marble shells and pillars that carried no weight. Mr. A. Greene in his witty, informative book, "A Glance at New York," published in 1837, wrote "Though these outward coverings and fronts are not just the thing which a people of good taste and honest purpose should aim at; still they are to be welcomed on the principle that 'half a loaf is better than no bread,' or 'that a dickey and collar are better than no signs of a shirt."

Broadway took on an aspect of a Hollywood set with a Greek façade in front, and a brick yard in the rear. The marble face-lifting trend caused several buildings to collapse without warning as if in protest to the violation of the laws of gravity and good engineering judgment. In 1832 the front of the large shop of Phelps & Peck slid down at the corner of Fulton and Cliff Streets killing a half-dozen people.

The rapid expansion of Manhattan's population led to some speculation as to the future capacity of the island.



CHEMICAL BANK TRUST COMPANY

Founded 1824 165 Broadway, New York

CONDENSED STATEMENT OF CONDITION
At the close of business, December 31, 1945

ASSETS

Cash and Due from Banks	\$258,593,486.63
U. S. Government Obligations	790,555,297.87
Bankers' Acceptances and Call Loans	171,435,855.77
State and Municipal Bonds	72,606,529.09
Other Bonds and Investments	57,937,490.85
Loans and Discounts	275,847,577.42
Banking Houses	299,793.50*
Other Real Estate	1,159,743 00*
Mortgages	216,226.84
Credits Granted on Acceptances	3,545,295.27
Accrued Interest and Accounts	
Receivable	3,420,572.45
Other Assets	1,885,907.59

\$1,637,503,776.28

LIABILITIES

Capital Stock	\$25,000,000.00	
Surplus	65,000,000.00	
Undivided Profits	10,050,614.95	
Unallocated Reserves	2,050,012.89	102,100,627,84

 Reserves for Taxes, Expenses, etc.
 4,880,137.80

 Dividend Payable January 2, 1946
 1,125,000.00

Acceptances Outstanding \$4,365,550.30
(Less own acceptances

held in portfolio) 162,171.97 4,203,378.33 Other Liabilities 1,034,057.22

Deposits (including Official and Certified Checks Outstanding \$45,975,338.65) 1,524,160,575.09 \$1,637,503,776.28

Securities carried at \$369,330,987.61 in the foregoing statement are deposited to secure public funds and for other purposes required by law.

* Assessed Valuation \$4,611,667.14

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People were pouring into the city from all over the world. The prophet, Mr. A. Greene, described the newcomers as "the cool and twice-thinking Scotchman; the warm and never-thinking Irishman; the mercurial and lighthearted Frenchman; the grave Spaniard; the romantic German; the thoughtless African."

Using a basis of 6 per cent annual gain, Greene made a fairly good estimate of the decennial gain for a generation ahead. His estimate of 6,000,000 in 1900 was not achieved until 1920, and that included the five boroughs. His principal concern was that the growing cost of living on the island would limit its expansion, and cause people to seek "residence elsewhere," which is precisely what happened, until the merger of the five boroughs into Greater New York recaptured Manhattan's overflow.

A more remarkable projection of population was made by John Pintard, a merchant and banker who early in the nineteenth century estimated that New York City would grow at the rate of 25 per cent every five years.

Croton Water Supply

The 40's were self-conscious years on Manhattan. The spirit of a millennium was abroad, with new inventions, new social ideologies, and a wide variety of medical and religious panaceas. People went into a frenzy of appreciation at the arrival of clear spring water from the Croton Reservoir in 1842. Previously Manhattan got its water from cisterns, deep wells, and principally from the Collect, the fresh water pond now buried beneath the Tombs. The Manhattan Company, currently the Bank of the Manhattan Company, used "powerful steam pumps" to get clear water from the depths of the wells surrounding the pond. To meet the needs of fire fighting apparatus, water was supplied from a reservoir at the Bowery and 15th Streets. Steam was used to force the water to fire hydrants.

There were, according to Mr. Greene, 2,000 dram shops, or saloons, in the city where whiskey was sold for 3 cents a glass. There was a saloon for each 150 people. There were also 500 grocers or one to 600 residents, and many of the grocers dispensed liquors making the supply of potable merchandise plen-

tiful, cheap, and convenient. Reformers looked hopefully toward the completion of the Croton project. It was a current nostrum that a few drops of hard liquor would purify as well as fortify the local water, especially the rain water washing down dirty roofs into dirty cisterns. The city did make a joyous event of the arrival of Croton water, but the water supply didn't lessen the local thirst.

Uniformed police came into being in 1844 after continuous agitation from the merchants, especially retail shops which suffered from pillage by mobs. Prior to 1844, protection was supplied by constables called "Leather-Heads," a nickname acquired because of peak-less leather caps which the city watchmen wore. In 1834 the Anti-Abolition mob sacked the home of Lewis Tapan, founder of THE MERCANTILE AGENCY.

Again in 1837 a group of hungry rioters broke into the store and warehouse of Eli Hart & Company which was accused of cornering the supply of barreled flour. The Mayor and his constables were helpless as the crowd littered the streets with flour, wheat, and sundries. The merchants also agitated for better fire protection, but it was not until 1865 that a paid fire department took over the enlarged responsibility from the adventurous and courageous, but not always effective, volunteers.

Colorful Advertising

Many of the early New York merchants had "color" in a merchandising sense. One of these, Bonfanti, advertised his wares in poetry and, according to Walter Barrett's "Old Merchants," Samuel Woodworth, author of "The Old Oaken Bucket" wrote Bonfanti's daily rhymed advertising "dodgers" or "throw-aways."

Barrett illustrates the wide variety of Bonfanti's stock with this anecdote. "One of Bonfanti's visitors said to a friend, 'You cannot name a product that our Joe Bonfanti doesn't keep.' 'I bet \$2 I can,' said the friend. They called on Bonfanti. The man who made the wager searched his mind for something difficult and suddenly asked, 'I wish to purchase a second-hand pulpit.' Bonfanti nodded to his assistant who disappeared into the recesses of his warehouse and returned with a second-hand pulpit. The losing bettor



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paid his wager, and walked out with a brand new poem, the gift of Bonfanti's hidden bard."

Many early shopkeepers were craftsmen first and merchants afterward. They earned more by rendering service than by distributing merchandise. Some of them were entitled to be known as small manufacturers, as the Latin origin of the word implies "made by hand." The combination tradesmen and craftsmen were apothecaries, bakers, boot and shoe makers, confectioners, ironmongers, opticians, saddlers, sailmakers, tailors, and wheelwrights. Fearon tells us in 1818 that a shoe shop required "capital of 500 to 1,000 dollars." An "oil and color (paints and ship chandlery) business" required 400 to 600 capital with an annual rental of about \$750. As power machinery came into use hand craft lessened in importance and the revenue obtained on the resale of goods became the more important part of the shopkeepers' liveli-

Ladies' Tailoring Introduced

Retailing still has its craft trades and services—the barber still lives by his skill and not by profit on his lotions. The boot and shoemaker has divided into the shoe store with manufactured footwear and the cobbler with his mending skill. Even the modern cobbler relies upon power machinery for increased income from his working hours. Ladies' tailoring, as opposed to dressmaking, came in after the Civil War and heralded a radical change in styles. Molyneux Bell advertised ladies' tailoring on his premises as early as 1849, and introduced ladies as sales clerks. Women's apparel shops, however, are a twentieth century development. "Truly rural" is the home where mother or daughter sit down and cut the cloth to a pattern. Where many magazines flourished with pages of dress patterns a generation ago, only styles are illustrated today. It is too easy to go down to the department store or specialty shop and make a selection (temporary war and post-war shortages excluded) at attractive prices. The dressmaker and seamstress lost out to the power blades which cut a gross of sleeves or vests in one swift operation and to modern styling which converts an artist's design into reality within a few hours.

There is no doubt about the democratic influence of power machinery over purses and merchandise. Milady of the twentieth century dresses better and is much more alert to style trends than her prototype of a century ago. The dame of the hoopskirt and bustle era often wore ten to twelve petticoats which consumed enough silk to clothe six or seven of her great-granddaughters. Wealth in those days was more easily identified by style and quality of raiment than in our own times. The discerning eye may choose the latest Parisian or American creation at Bendel, Jay Thorpe, or Hattie Carnegie, but the style scouts and mimics soon copy the winners and make them available in the neighborhood apparel stores. It is a little more difficult in our day to pick out the colonel's lady from the host of Judys in the Easter parade on Fifth Avenue. Opening night at the opera is still a stronghold of the tradition of elegance and grandeur but the society page reporters are not as certain of the faces under the tiaras and ermines as they were in the generation past.

Barrett in "The Old Merchants of New York" attempts to clothe merchants with princely and hereditary honors. Many of them were solid citizens and stalwart captains of trade. "Very few old merchants brought up their sons to business in their own stores" Barrett writes. "A business education was a severe one in old days. Every duty from sweeping out the office to bookkeeper was minutely exacted. It was regular apprenticeship to commerce and it resulted in making thorough merchants." The education included delivering merchandise, copying orders, running to the Custom House, and even serving as supercargo on ships in which the merchant had an interest.

Patrons of the Arts

Some of the early names mentioned by Barrett were more than merchants, some were servants of the arts like Dominick Lynch, the vintner whose father founded Rome, N. Y. Dominick entertained the visiting bluebloods of Europe in true continental style. He was the first to introduce an opera troupe in America, bringing Garcia, Angrisani, and Madam Malibran, greatest Italian tenor, basso, and soprano re-





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spectively, in a day when the theater was considered a wicked enterprise. Madam Malibran was a daughter of Garcia and married Malibran, a New York merchant.

Barrett also refers to John Haggerty, the auctioneer whose hammer disposed of many millions of imported merchandise, and the Kearny Brothers, John W. and Philip, who operated a fleet of ships and collided with Napoleon's agents in European ports, and gave their name to Kearny, N. J. Another celebrated merchant was Archibald Gracie, one of the founders of Tontine Coffee House and the builder of the beautiful Gracie Mansion overlooking the East River, a Summer home of the Mayor.

Probably most sensational of New York merchants was the itinerant German cake pedlar, John Jacob Astor, who came to America in 1783 and opened up a toyshop in Manhattan with seven flutes for capital, the musical instruments being imports from his brother's factory in Germany. Astor made his vast fortune carrying furs from Oregon to China and bringing back cargoes of tea. He also benefited by the United States Customs policy of allowing eighteen months for payment of duties, a period in which he made good use of large sums of accumulated tariffs to his own legitimate enterprise.

Claffin-Stewart Rivalry

After the Civil War, the two great wholesale dry goods competitors were A. T. Stewart and H. B. Claffin. Stewart came from Lisburn, Ireland, Claffin from Worcester, Mass. Claffin's building on Worth, Church, and West Broadway with its bulk of Nova Scotia limestone hunched its seven stories in challenge to Stewart's older marble front structure at Broadway, Chambers, and Reade Streets. Stewart confined his retail business to his new iron front building at Broadway and 9th Street, a showplace which cost nearly three millions to build in 1862.

Matthew Hale Smith in his "Sunshine and Shadow in New York," describes the internal set-up of Claffin's around 1870. "It has various departments, such as a Flannel Department, Dress Goods, Shawls, Silks, White Goods, Lace Cloth, Boots and Shoes, Hoseiry, Notions, and Carpets. Each department is as distinct as if it were a separate establishment. Each has its own head.

To each department is charged rent, gas, clerk hire, etc. All of this has to be paid out of the sales of the department; after which the profits are figured up."

The rivalry of Claffin and Stewart brought their personalities to the fore. Claffin was impetuous, democratic—Stewart calculating and autocratic. Stewart's credit policy followed the lines laid down by Lewis Tappan. Stewart had a tight credit policy with his "country merchants," Claffin was inclined to liberality. Stewart's business faded out after his death in 1876 and was eventually absorbed by John Wanamaker of Philadelphia. The Claflin failure in June 1914 was sensational but that story belongs to modern business.

New Methods at Macy's

Captain Roland H. Macy came to New York in 1858 after a brief career in Wisconsin real estate in which he made a few thousand dollars. He had previously been in the dry goods business in Haverill, Mass. Macy brought some original ideas to merchandisinghis advertising methods and window dressing techniques causing the staid old merchants to lift an eyebrow. While Stewart and others may have had ideas on the department store before Macy, it was L. Strauss & Sons who came to Macy's in 1874 and stocked the first "leased department." This was a basement department devoted to china, glassware, and silver, details of which are described by Ralph Hower in Macy's of New York, 1858-1919.

Early shoppers spent most of their time touring the stores of Arnold, Constable & Company on Canal Street at the northeast corner of Mercer, the firm being formerly Arnold & Hearn. James A. Hearn had left to establish his own business at 425 Broadway in 1842. At Arnold's the ladies crossed from the "dollar side" of Broadway as the west side of the street was called to the smaller shops on the east side of Broadway, the "shilling side," so called because its buildings were less impressive. There they turned at A. T. Stewart's, the first of the great dry goods stores of New York, at Chambers, proceeded to Division Street to look at the bonnet shops there. Others sauntered on to Catherine Street to Lord &



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The shadows of the elevated structure in the 70's cast their blight upon the retail life of Chatham Square. Most stores were caught in the northward business tide. Lord & Taylor, for instance, was founded in 1826 at 217 Catherine Street and in 1872 moved uptown to Broadway and 20th. In 1914 the store moved to its present site.

Some familiar and impressive store names are lost now from lower Sixth Avenue. Simpson and Crawford, Siegel & Cooper, and O'Neill-Adams belonged to the previous generation which abandoned the habit of shopping in the area between 14th and 23rd Streets. Greeley Square is still a magnet for shoppers with Macy's, Gimbel's, Saks', hovering around convenient rail and bus terminals from Long Island and New Jersey. The Grand Central Terminal feeds the new and fashionable shopping centers around Radio City as well as the stores below the New York Public Library on Fitth Avenue-Lord & Taylor and Arnold Constable. McCreery's and Altman's are almost mid-way between the rail terminals. The location of large department stores and their patronage are of critical importance to the small specialty shops which cluster about them and pick up the rich crumbs.

Manhattan Today

There is nothing mysterious about the direction of retail growth in Manhattan. The two rivers and the shape of the island determined the only direction possible. What makes the fact interesting are the supporting and competing influences of the growth and relative size of retail volume to the size of the island. Retailing in New York has arrived at the natural barrier of Central Park. Will the trend northward pause here having spent its century and a half of impetus, or will it split around the park? The answer is not at all evident at the present time.

Bridges and tunnels have destroyed both the advantages and obstacles of the island. While Manhattan's retail sales still grow in volume and dollar value, the island's consuming population has long since passed its peak. The policy of de-centralization has begun in earnest with the department stores branching into suburbs-White Plains, Hempstead, East Orange, Ridgefield, and others to come.

However, Manhattan has lost none of the edge of its retail supremacy. Fifth Avenue sets the pace for the nation in its department stores and specialty shops. Few cities could support a Tiffany and a Black, Starr & Gorham, or a Brentano and Scribner on the same street. The eyes of the nation turn to its shop windows and its newspaper advertisements, such as Best & Co., Bergdorf Goodman, Jay Thorpe, Bonwit Teller, and Milgrim. As long as people have money to spend, the shops in Manhattan will show how to invest it in the wearables and durables of modern society.

N. Y. ANNALS

(Continued from page 20)

1826-This was a year of great Commercial embarrassment and distress.

The firm of Lord & Taylor is founded by Samuel Lord and John Taylor, cousins. Their first store was at 41 Catherine Street and in 1838 they moved to 61-63 Catherine Street where they operated until

1828-Broadway is the handsomest street and runs to 10th Street. It contains the principal retail shops of jewelers and watchmakers; also the principal book stores, merchant tailors, hatters, carpet, and fancy goods stores. Maiden Lane, from Broadway to William Street, and William Street from Liberty to Beekman, and Chatham Street from the Park eastward, are principally occupied by retail dry good and fancy stores. Canal Street, west of Broadway, contains many similar

There are some trades so concentrated that they are mostly contained in one neighborhood-such as tanners and curriers on Ferry Street, Jacob Street, and the vicinity; also furriers on Water Street, cabinet and chair makers on Broad Street.

1829—The first meat shop not in a public market house is opened by Henry Cornell. This was a revolt against the city's method of competitive bidding for stalls. Although frequently brought to court he was ably supported by many citizens and a law in favor of "open shops" was established in 1843.

The apothecaries of New York form an association under the title of the College of Pharmacy for the purpose of elevating the character and improving the sale of drugs.

1835-The fashionable end of the city is now decidedly at Washington Square and the surrounding neighborhood from Bleecker to Albion Place.

There are eighteen stores in the basement of the Astor House (which is nearly completed) on Barclay, Vesey, and on Broadway. These will rent for at least five hundred dollars each.

1836—Philip Hone, one of New York's leading citizens, sells his home at 235 Broadway for \$60,000. Its ground floor is to be converted into shops.

The rise in rents on Broadway and the price of bread there have already driven many uptown. Mr. Astor thinks that a great portion of the retail business, dry good stores, and so on, will soon reach as far as Prince Street.

1837—Tiffany & Young were established at 259 Broadway selling Chinese objects. In 1845 it introduced its first stock of standard gold and gem jewelry. In 1847, styled Tiffany, Young & Ellis moved to 271 Broadway. When first known as Tiffany & Co. in 1853, it built

a store of exceptional elegance at 550 Broadway.

The lower part of Broadway is fast falling into neglect by the promenaders, whereas further up, around Leonard, the street is gaining daily as a public resort.

1838—Many of the shops, or stores as they are here called, have been fitted with large plate-glass fronts, similar to those in London and but for the depression which has taken place, many more

would have followed.

New York tradesmen do all they can to attract the notice of the public by handbills, placards, advertisements, and so on, and these may be read by those who look upwards or straight forward, or to the right or to the left. However, there are those who walk with their eyes on the ground and consequently see nothing, but the New Yorkers have provided for this contingency by having large marble tablets, like horizontal tomb stones, let into the flag pavements of the trottoir in front of their shops on which is engraven in duplicate, turning both ways, their names and businesses. So, if you walk up or down Broadway, if you cast your eyes downwards so as not to see the placards above, you cannot help reading the inscription below.

1839—Around Union Place new blocks of houses, capacious and stately, are springing up with surprising celerity. It is proposed to extend Broadway some miles beyond Union Place.

Pearl, from Chatham to Vandewater, is the principal quarter for milliners. Division, between Chatham Square and Market; William, around Fulton; and sections of Greenwich, Hudson and Bleecker, and part of the Bowery, are also occupied by them.

Thirty dwelling houses on Broadway, between Barclay and Canal, have been converted into spacious stores during the first five months of this year.

1843—There is a gymnasium in the



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upper part of Broadway where the ladies don the Turkish costume of jackets and loose trowsers and are taught sparring and climbing.

1844:—Splendid shops are beginning to appear near Union Park.

1845—Fifth Avenue is rapidly filling up with houses. A. T. Stewart buys the property on Broadway between Chambers and Reade for a new store.

1846—Chelsea, in the upper part of the city, is rapidly covering itself with new buildings.

1847—Duncan Phyfe sells his stock of furniture and retires from business. Elevated railroads are being agitated to relieve the main streets of omnibus travel.

1849—Excerpts from advertisement of Molyneux Bell, who retailed Ladies "Cloaks and Mantillas," "Previous to 1849, the manufacture of these articles had been confined to dressmaking shops, and to a few fashionable stores, who made it merely a branch of their business. The influence of the revolution effected by Mr. Bell has also extended beyond the chief cities, and country merchants, in place of buying velvets as formerly, now purchase cloaks, talmas, and mantillas ready-made and by this means the ladies of every locality enjoy the same opportunities of procuring the choicest styles as those in the centres of fashion.

"Mr. Bell was the first to introduce sewing machines in the manufacture and now uses them more extensively than any other house in the same business. He was the first to introduce Young Ladies as saleswomen in the retail department—a feature that has been adopted and found indispensable by all his competitors."

1850—The population is about 515,500. This is an increase of about 144,000 in five years. The suburbs lying within one mile of the city and consisting of Brooklyn, Williamsburgh, Jersey City, and Hoboken, contain about 150,000.

1851—The attaches of the Custom House were thrown into a state of great excitement by the appearance among them of a lady dressed in the Bloomer costume.

1854—Below Prince Street on Broadway there is now scarcely a single private residence. Many of the buildings that were formerly dwelling houses have their lower stories converted into shops and the upper rooms devoted to lodgers or occupied by the owners of the establishments below; but every year removes many of these buildings and fills their places with new and fashionable structures of stone or marble.

1859—The store of Lord & Taylor at the corner of Grand Street and Broadway, to be opened on August 29, is one of the finest on this thoroughfare. It is five stories high, built of white marble, and looks more like an Italian palace than a place for the sale of broadcloth, The

basement and the first and second stories of this establishment form three immense sales rooms—each of which is about 100 feet square and is divided by Corinthian columns into three compartments. The stairs communicating with these stories are of massive oak. The upper floors will be used for manufacturing.

Since the Central Park was commenced there has been considerable activity on the northern end of the island. Property in that vicinity is rapidly acquir-

ing an increased value.

1861—Stewart's employs 350 clerks, and annually sells dry goods to the amount of several millions. Bowen McNamee & Co.'s marble store, also devoted to dry goods, is on the corner of Pearl Street and Broadway and is a costly and elegant edifice. This firm has made itself widely known by its reply to a threat of a withdrawal of trade for its political opinions—"Our goods are for sale, not our principals!"

Mrs. Lincoln, wife of the Presidentelect, is now in this city, and, it is said, will remain here for a few days to make some needful purchases for the White

House.

1864—The Eighth Avenue horse-car line reached as far north as 84th Street;

by 1867 it reached Harlem.

1865—Benjamin Altman establishes his business on the east side of Third Avenue (No. 39) between 9th and 10th Streets. (In the early 70's he removed to 6th Avenue between 21st and 22nd Streets; in 1876 the business was established at the corner of Sixth Avenue and 19th Street and extended until the entire block front between 19th and 20th Streets was occupied. It moved to Fifth Avenue and 35th in 1906, gradually occupying the entire block). The New York Dry Goods Exchange at 49-51 Park Place is opened for business.

among all classes is the inflation of prices of all articles of necessity and the want of corresponding inflation in wages. In 1863, when wages had reached a very high point, the prices of food were: flour, \$5.70 a barrel; coal \$8.60; pork, \$13.90 per barrel; butter, 22 cents; lard, 10 cents; cod fish, \$5.75 per cwt. This year in peace flour is \$9; coal, \$13.50; pork, \$37 per barrel; butter, 50 cents; lard, 27 cents; cod fish, \$8.12 per cwt.

1867—Fifth Avenue seriously rivals Broadway as a fashionable promenade. We have no doubt that the time will come, within a quarter of a century, when fashion will change from Broadway to Fifth Avenue and the now fashionable Avenue will be nothing but a row of retail stores, while in Broadway the wholesale trade will have monopolized everything below 14th Street.

1868—A trial trip by Charles Harvey on the first elevated railroad "leads the friends of the enterprise to hope that the

NEGOTIATION

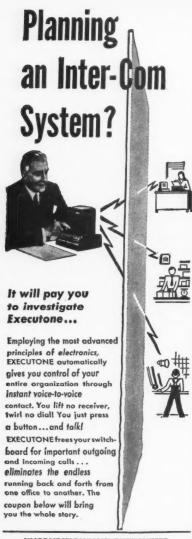
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problem of safe and rapid locomotion through the crowded streets of the city has been solved."

1869-Fifth Avenue has been invaded between 12th and 23rd Streets by the aggressive influence of trade. Firstclass stores have been constructed out of brownstone palaces and dry goods, millinery, tailoring, restaurants, and music stores are beginning to intrude.

1870—Tiffany & Co. occupies its new building with an iron front at the southwest corner of Broadway and 15th Street. This was later enlarged to a frontage of 78 feet on Union Square, 165 feet on 15th Street, and was five stories high.

The first subway (an experimental line using pneumatic power) is opened and operated. The entrance was in the Devlin Building at the southwest corner of Broadway and Warren.

1872-The center of New York's

population is 14th Street and 4th Avenue. 1876—On April 19 A. T. Stewart died in his home on the northwest corner of 5th Avenue and 34th Street. After his death the business came into the hands of a surviving partner, William J. Libbey, and Judge Henry Hilton, who had been Stewart's attorney. After a quarrel the firm of A. T. Stewart & Co. was dissolved and reorganized as F. J. Denning & Co., Denning having been Stewart's chief manager. After Denning's death in 1892, the firm took the name of Hilton, Hughes & Co. This company failed in 1896 and John Wanamaker purchased it.

1878-The first New York Telephone Directory is issued—a small card. No numbers are given, calls are made by name. Dun, Barlow & Co., McKillop & Sprague, and the Bradstreet Company are listed under "Commercial Agencies." Under "Millinery, Dry Goods, &c." is James McCreery, the only one of today's great stores to take prompt advantage. The entire directory lists 252 names.

1879—Fifth Avenue has now become thoroughly invaded, from Washington Square almost to the Central Park, with fancy shops, jewelers, hotels, and boarding houses and its exclusiveness has vanished forever.

1881-The headquarters of the Edison Electric Light Company is established at 65 Fifth Avenue.

1887-Fifth Avenue residences are being remodelled one by one for business purposes.

The "Gibson Girl" is introduced and influences manners and cus-

1901—Wallack's, later known as the Star Theatre, is taken down and the next year Rogers-Peet occupies the site at Broadway and 13th Street.

1905—Tiffany & Co. opens its new building at Fifth Avenue and 37th Street. The Gorham Building was completed at about the same time, both buildings being designed by McKim, Mead & White.

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